

AD-A015 329

COMMERCIAL CONTRACT TRAINING, NAVY AREA VOTEC
SUPPORT CENTER (AVSC) GUIDELINES

D. R. Copeland, et al

Naval Training Equipment Center
Orlando, Florida

June 1975

DISTRIBUTED BY:

NTIS

National Technical Information Service
U. S. DEPARTMENT OF COMMERCE

T A E G

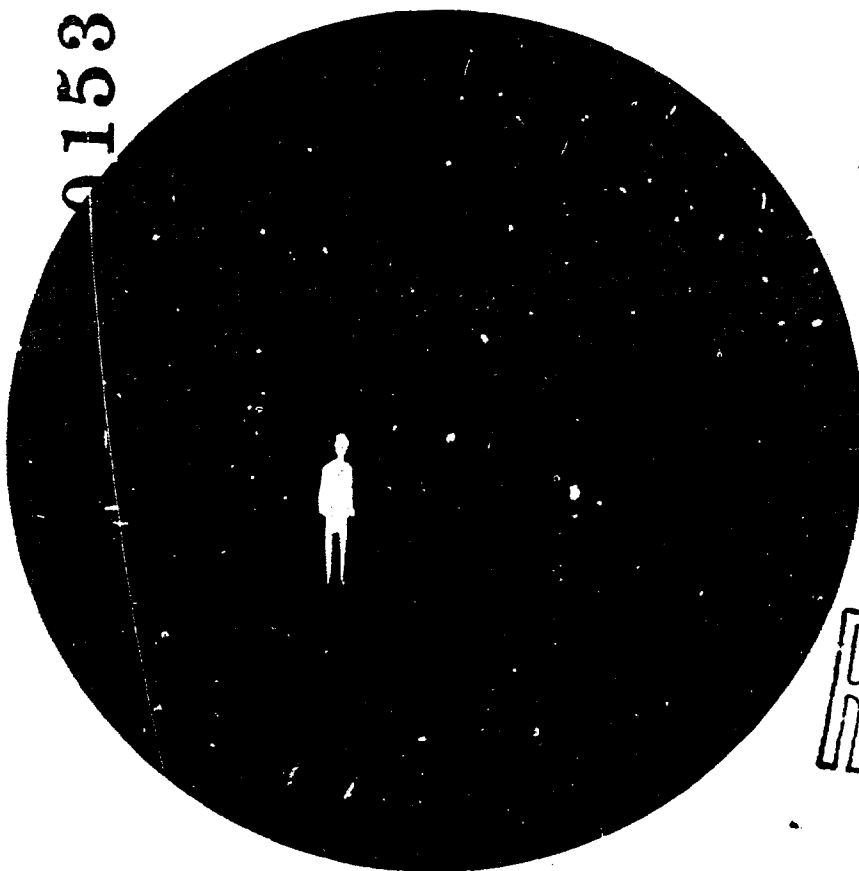
TRAINING
ANALYSIS
AND
EVALUATION
GROUP

283124

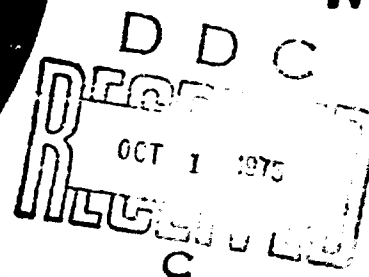
TAEG REPORT
NO.21-2

COMMERCIAL CONTRACT TRAINING
NAVY AREA VOTEC SUPPORT CENTER
(AVSC) GUIDELINES

915329



FOCUS
ON
THE
TRAINED
MAN



APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION IS UNLIMITED.

Reproduced by
NATIONAL TECHNICAL
INFORMATION SERVICE
US Department of Commerce
Springfield, VA. 22151

JUNE 1975

TRAINING ANALYSIS AND EVALUATION GROUP

ORLANDO, FLORIDA 32813

Unclassified

Security Classification

DOCUMENT CONTROL DATA - R & D

Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified

1. ORIGINATING ACTIVITY (Corporate author)		2a. REPORT SECURITY CLASSIFICATION	
Training Analysis and Evaluation Group Orlando, FL 32813		II	
2b. GROUP			
3. REPORT TITLE			
COMMERCIAL CONTRACT TRAINING, NAVY AREA VOTEC SUPPORT CENTER (AVSC) GUIDELINES			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates)			
Final Report			
5. AUTHOR(S) (First name, middle initial, last name)			
D. R. Copeland, T. F. Curry, S. C. Gates, J. M. Henry, and R. V. Nutter			
6. REPORT DATE		7a. TOTAL NO OF PAGES	7b. NO OF REFS
June 1975		III	0
8a. CONTRACT OR GRANT NO		8b. ORIGINATOR'S REPORT NUMBER(S)	
A. PROJECT NO		TAEG Report No. 21-2	
C.		9a. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
D.			
11. DISTRIBUTION STATEMENT			
Approved for public release; distribution is unlimited.			
11. SUPPLEMENTARY NOTES		12. SPONSORING MILITARY ACTIVITY	
13. ABSTRACT			
<p>This two-part report describes the Phase II findings of a two-phase study to determine if certain Navy skill training requirements could be satisfied through contract with qualified commercial sources. Phase I study findings presented in TAEG Report No. 13-1, December 1974, address various commercial training programs, management systems, technological advances, instructional techniques, curricula, and financial management practices potentially applicable to the Navy training system.</p> <p>Whereas the initial study effort dealt with a survey and preliminary analysis of the training capability of commercial sources, the effort described in this report demonstrates the utility of the commercial contract training concept. TAEG Report 21-1 addressed the major issues concerned with source evaluation, skill analysis and selection, contractual considerations, and comparative training capability evaluation. It provides a basis for training and cost-effectiveness analyses necessary for sound management decisions subsequent to initiation of procurement action of training services from commercial sources. This report contains information useful to Area VOTEC Support Center personnel and others involved with implementation and functional management of a VOTEC program. Most importantly, TAEG Reports 21-1 and 21-2 present a plan to initiate, develop, implement, manage, and administer commercial contract</p>			

DD FORM 1473
1 NOV 65
S/N 0102-016-8800

Unclassified

Security Classification

Unclassified

Security Classification

14 KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
<p>BASIC SKILL CONTRACT PROCEDURE TRAINING SPECIFICATION FOR BASIC SKILLS APPRENTICE TRAINING VOTEC TRAINING FROM COMMERCIAL SOURCES</p> <p>ABSTRACT (continued)</p> <p>training programs to support appropriate active and reserve components of the Navy in the area of apprentice level basic skills training.</p>						

Unclassified

Security Classification

TAEG Report No. 21-2

COMMERCIAL CONTRACT TRAINING
NAVY AREA VOTEC SUPPORT CENTER (AVSC) GUIDELINES

D. R. Copeland
T. F. Curry
S. C. Gates
J. M. Henry
R. V. Nutter

Training Analysis and Evaluation Group

June 1975

GOVERNMENT RIGHTS IN DATA STATEMENT

Reproduction of this publication in whole
or in part is permitted for any purpose
of the United States Government.

Alfred F. Smode

ALFRED F. SMODE, Ph.D., Director,
Training Analysis and Evaluation Group

G. Stone

G. G. STONE, CAPT, USN
Assistant Chief of Staff
Research and Program Development
Chief of Naval Education and Training

TAEG Report No. 21-2

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
I INTRODUCTION.	3
II VOTEC BASIC CONCEPTS.	5
III VOTEC COORDINATION STRUCTURE.	7
IV TYPICAL FUNCTIONAL PROCESS TO OBTAIN VOTEC TRAINING . . .	11
V CONTRACTING NOTES	13
VI TYPICAL SURVEY FORMS.	19
VII VOTEC SOURCES OF NAVY RELATED INSTRUCTION	31
APPENDIX A Training Specification for Navy/Marine Corps Vocational/Technical (VOTEC) Skill Training Program, January 1975	57
APPENDIX B VOTEC Training Specification for Navy Lithographer (LI) Skill Training, July 1974.	59
APPENDIX C VOTEC Training Specification for Navy Yeoman "C" (YN) (Flag Writer) Training, March 1975	61

LIST OF ILLUSTRATIONS

<u>Figure</u>	<u>Page</u>
1 VOTEC SUPPORT CAPABILITY	8
2 VOTEC Coordination Structure	9
3 VOTEC Command and Institution Responsibilities	10

SECTION I

INTRODUCTION

This part of the Commercial Contract Training investigation prescribes a system for conducting Vocational/Technical (VOTEC) training on a daily basis from commercial sources. Essentially, core groups of professionals from the training, comptroller and procurement fields will be tasked under the designator Area VOTEC Support Center (AVSC) at selected Navy installations for the purpose of assisting commands during the planning, procurement and monitoring phases of the VOTEC training procurement process. The guidelines provided are not intended to provide final answers to all problems but rather to highlight probable areas of consideration that will confront those implementing the program. In addition, sections are included that contain data and basic notions that have proven worthy as a result of experience gained during past VOTEC type efforts. As with any new program, some modifications due to local conditions may be required to achieve program aims. Taken in this perspective, the included information will provide assistance during initiation of VOTEC training.

Prior to using the data within this report, personnel administering the VOTEC program should familiarize themselves with the contents of TAEG Report 21-1, Commercial Contract Training; the Training Specification for Navy/Marine Corps Vocational/Technical (VOTEC) Skill Training Program (appendix A); and the curriculum for the training course to be procured.

SECTION II

VOTEC BASIC CONCEPTS

VOTEC . . .

1. Is a method of obtaining rate or rate specialty qualification training in whole or in part with On-Board-Training (OBT) follow-on training.
2. Is not intended to compete with or replace service or inter-service school training but to be an adjunct to such training during peak loading or general mobilization and coverage for nonexistent training.
3. Should be a centralized managed program for purposes of control.
4. Takes advantage of quality public and private readily available training resources.
5. Is "grass roots" in nature providing opportunity for Fleet commands to train or retrain to obtain rate qualified personnel.
6. Is cost effective for many low density rate qualification requirements.
7. Is for "basic skills" training; i.e., to provide a military occupational skill capability.
8. Is not a "pre-retirement" training program.
9. Must meet accepted standards (accreditation of recognized agency or command having skill area cognizance).
10. Must allow a degree of flexibility among AVSC's as a function of VOTEC school availability.
11. Must be accomplished within reasonable commuting distance of student's home station to be truly cost effective.
12. Should not take student personnel completely out of the military environment.
13. May require some OBT before full military certification is granted after formal VOTEC training is completed.
14. May provide recognition or credit by school institutions.

TAEG Report No. 21-2

15. Must be accomplished on a basis of service need rather than nice to have or general personnel development.

16. Requires a cooperative effort by the military unit, the AVSC and procurement personnel as well as contracted institution personnel to be successful.

17. Must meet Armed Services Procurement Regulations (ASPR) criteria.

SECTION III

VOTEC COORDINATION STRUCTURE

The VOTEC coordination structure is defined as those administrative/ approval channels through which a request for VOTEC training from commercial sources should pass to most efficiently affect such training.

The design of the coordination structure for VOTEC training was based upon the following precepts:

1. Policy and annual funding/budgeting responsibility should be centralized at the Chief of Naval Education and Training (CNET).
2. Functional management of AVSC's should be under the cognizance of the Chief of Naval Education and Training Support (CNETS) with AVSC's physically located at major installations having resources such as training staffs and contracting departments in existence, thus minimizing VOTEC implementation impact.
3. Basic skills training should be conducted at VOTEC institutions while Navy students remain quartered on base or station.
4. Basic skills training capability via VOTEC should be available to both the Chief of Naval Technical Training (CNTECHTRA) and Fleet users through the Training Commands, U.S. Atlantic and Pacific Fleets (COMTRALANT, CONTRAPAC).

Figure 1 depicts VOTEC support capability for Navy basic skills training via CNETS. Solid figure lines indicate established organizations in place with the capability to function as an AVSC. Dashed figure lines show areas of need for VOTEC training that could be developed with minimal effort. Figure 2 shows logical locations for initial establishment of AVSC's within CNET. Selection was based on current and projected areas requiring high density basic skills training capability. Figure 3 lists functions of separate levels of command and VOTEC institutions to affect VOTEC training.

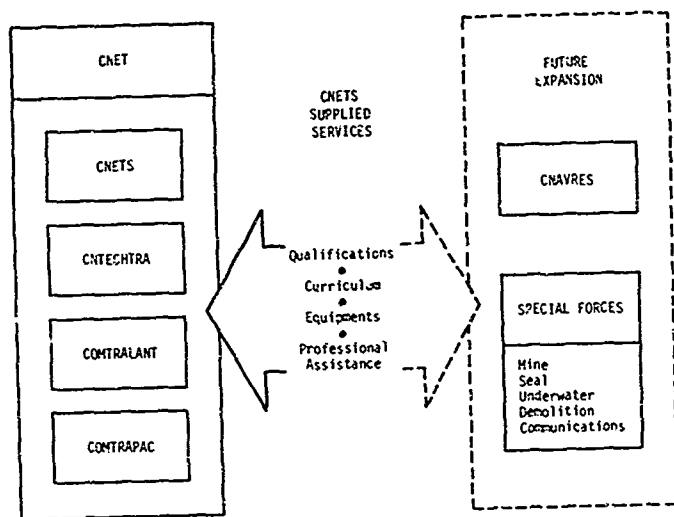


Figure 1. LOTEC Support Capability

TAEG REPORT NO. 21-2

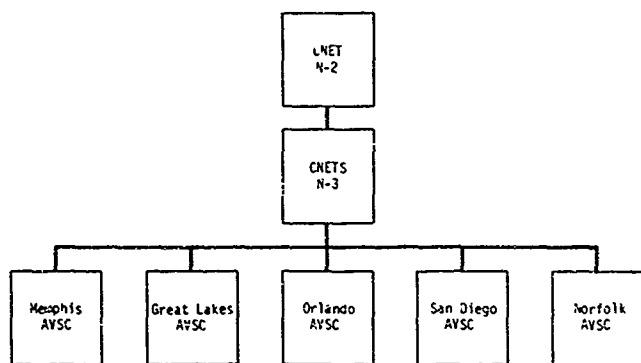


Figure 2. VOTEC Coordination Structure

TAEG Report No. 21-2

CNET	AREA VOTEC SUPPORT CENTERS
<ol style="list-style-type: none"> 1. Provide overall management functions for VOTEC program. 2. Provide budget support for VOTEC. 3. Determine and publish appropriate directions to operational commands and AYSC's. 4. Maintain AYSC liaison for funding, special operations, and policy directions and clarification. 	<ol style="list-style-type: none"> 1. Maintain liaison with CNETS for advisory and funding. 2. Maintain surveyed VOTEC school data. 3. Process VOTEC training requests. 4. Act as general VOTEC training agent and information center. 5. Aid in course selection. 6. Provide funding coordination. 7. Provide school selection assistance. 8. Coordinate contracting. 9. Coordinate support services for training. 10. Monitor training and coordinate support as required. 11. Provide planning data as required to CNETS or CNET.
FUNCTIONAL COMMANDS	
<ol style="list-style-type: none"> 1. Responsive to CNET VOTEC requirements. 2. Coordinate and approve Unit VOTEC training requests. 3. Monitor VOTEC effort as required. 	
UNITS	
<ol style="list-style-type: none"> 1. Determine training requirements. 2. Determine VOTEC training requirements. 3. Submit VOTEC request for training to AYSC's via command chain as required. 4. Assist and coordinate with AYSC's during implementation and conduct of training as required. 5. Submit VOTEC completion report. 	
	VOTEC INSTITUTIONS
	<ol style="list-style-type: none"> 1. Provide inputs to assist in finalization of VOTEC efforts. 2. Coordinate planned VOTEC effort with school administration. 3. Negotiate VOTEC contract. 4. Provide facility, instruction, and equipment, according to contract.

Figure 3. VOTEC Command and Institution Responsibilities

SECTION IV

TYPICAL FUNCTIONAL PROCESS TO OBTAIN VOTEC TRAINING

1. Unit, service school or operational command determines the VOTEC training requirement.
2. Unit or command submits VOTEC training requirement to AVSC via functional command approval chain.
3. Functional command coordinates training request as appropriate and forwards with approval to AVSC.
4. Requesting command and AVSC select most appropriate training sources and layout basic planning.
5. AVSC provides or secures funding, initiates contractual effort with the contracting officer, and coordinates initial institutional contact(s).
6. Representatives of school, unit, contracting officer, and AVSC meet for common definition of requirements for course of instruction.
7. Contract negotiated according to ASPR and specifications for training.
8. Training initiated by school; monitored and supported by the AVSC and requesting command as appropriate via the contracting officer.
9. Training completed. Necessary administrative details related to student records, contract close-out and reporting completed.

NOTE: Step 3 approval chain should be minimal.

SECTION V
CONTRACTING NOTES

INTRODUCTION

Training personnel, in general, have little experience in the area of conducting contractual negotiations in accordance with the ASPR and therefore the procurement team should include representatives of the contracting officer assigned early in the procurement planning cycle.

The ASPR have had a long history of development and have undergone many revisions and modifications based upon legal decisions, legislative actions, and experience. As a result, the ASPR are a viable yet complicated set of procurement regulations to the unindoctrinated. Contractual provisions under the ASPR, however, are available for any reasonable procurement of services but require the professional assistance of contracting personnel to the training agency to properly affect the legal procurement of training services.

Concerning contracted institutional training, the most often asked question by school authorities is: "What do you want the student trained to do and to what depth?" The answer to this two-part question must be resolved before any contractual work statement or description of training can be prepared. The most appropriate method available to accomplish this task is through the use of terminal performance objectives. It should be understood that a clear, detailed statement of the training requirement is the key to the success of the VOTEC program as well as being a necessary and vital part of the contractual document. To assist in the description of training, a Training Specification for VOTEC Training (appendix A) is available and should be used in conjunction with the applicable curriculum or specific training specification.

ARMED SERVICES PROCUREMENT REGULATIONS (ASPR)

Basic concepts of the ASPR include:

1. Equal opportunity for qualified offerors to submit priced bids or proposals for equal services or supplies.
2. Award of the contract to the offeror submitting the lowest reasonable and acceptable bid or proposal cost for the services or products.
3. Impartial and responsible action during the period of the contract by both the Government and the contractor.

Section III of the ASPR covers procurement by negotiation which in most cases will be a method used in VOTEC procurement. Part 2 of section III of the ASPR covers Circumstances Permitting Negotiation (in lieu of formal advertising) which should be reviewed by those involved with VOTEC procurement.

In most cases, the appropriate contractual instrument will be a negotiated "Indefinite Quantity Contract" in accordance with ASPR 3-409 and/or 3-608.

A bilateral contract (with both parties signing) is recommended, whenever feasible, utilizing Standard Form 26 (Award/Contract) and DD Form 1155 (Order for Supplies or Services/Request for Quotations) as the vehicle for ordering services under the contract. The Standard Form 33 (Solicitation, Offer and Award), "single" signature approach, however, may be appropriate in some instances. In addition, small purchase procedures utilizing the DD Form 1155 are permitted for procurements up to and including \$10,000 if appropriate under the circumstances of each case.

GENERAL CONTRACT REQUIREMENTS

Of primary importance, regardless of contract type, is the award of a good, legal contract meeting the following requirements and constraints, as applicable:

1. **Requirements.** Contracts in support of the VOTEC training program may provide capability of the program to function:

- a. In either an institutional or industrial environment
- b. At multiple geographical locations
- c. For basic or advanced entry level skill training
- d. For Regular or Reserve component members
- e. With varied student quantity input
- f. With provisions for payment of a deliverable item (i.e., trained student) rather than by course duration or cost per hour of instruction. See definition of "trained student" contained in the Training Specification for VOTEC Training (appendix A).
- g. With minimal administrative effort, but capable of activating various items of the covering contract as need dictates, particularly if a long-term multiple course type contract is involved.

h. With provision for annual and/or multi-year training endeavors.

i. With provision for entering students in institution-scheduled courses as well as separate all-military student courses.

2. Constraints. The following are considered as practical constraints relative to contractual effort in support of VOTEC training:

a. Contract should be limited to the continental United States, Alaska, and Hawaii.

b. Each contract should not meet or exceed \$100,000 per annum.

c. Contract should not be used in competition with service school or interservice school Military Occupational Speciality (MOS)/rate training, but as an adjunct to such training.

d. Training should occur within reasonable commuting distance of students' home duty station.

TYPICAL CONTRACT

1. As previously stated, a typical contract for VOTEC procurement will generally be an "Indefinite Quantity" type and will consist of a cover (award) page, sections, clauses and/or provisions, and attachments in accordance with the Uniform Contract Format prescribed in ASPR.

2. The Standard Form 33 is a solicitation document which may be used for contract award as well as solicitation when the bidder's offer in response to the Government's solicitation (SF 33 and accompanying documentation) is accepted by the Government without further negotiation or significant change.

3. When it is desirable to have both parties sign the contract (e.g., offer submitted by prospective contractor leads to further negotiation), DD Form 26 shall be used for the contract award and replaces the SF 33. Regardless of which form is used for the award, DD Form 1155 is used to place individual orders against the basic Indefinite Quantity Contract. In effect, the basic contract sets forth the overall items, descriptions, conditions, provisions and clauses and the DD Form 1155 is used to place and obligate individual orders for specific services covered by the basic contract.

CONTRACT FORMAT/CONTENTS

ASPR paragraphs 2-201 and 3-501 set forth the details for structuring solicitations, and resulting contracts, in accordance with the Uniform Contract Format (including the Table of Contents). For general information purposes, however, a typical VOTEC solicitation or contract would generally include the following:

- Section A - Cover sheet on solicitations only (DD Form 1707 or 1706)
- Section B - Contract Form and Representations, Certifications, and other Statements of Offeror:
SF 33 (Used in solicitation and in some instances as cover page of the contract)
DD Form 26 (Contract only when SF 33 not used for contract award)
- Section C - Solicitation Instructions and Conditions and Notices to Offerors (Solicitation only)
- Section D - Evaluation Factors for Award (as applicable in solicitation only).

The Schedule of the solicitation or contract includes the following sections as applicable:

- Section E - Supplies/Services and Prices
- Section F - Description/Specifications
- Section G - Preservation/Packaging/Packing - not normally needed in a VOTEC contract.
- Section H - Deliveries or Performance
- Section I - Inspection and Acceptance
- Section J - Special Provisions (other than those covered by sections E through I and section K)
- Section K - Contract Administration Data
- Section L - General Provisions. (Reference to mandatory and other applicable clauses whether included by reference to ASPR or to be included in full text as attachment(s).)
- Section M - List of Documents, Exhibits, and Other Attachments included in the solicitation or contract.

TAEF Report No. 21-2

In addition, a VOTEC solicitation or contract will generally include, as a minimum, the following attachments:

- Attachment (1) - List of Clauses Incorporated by Reference to ASPR
- Attachment (2) - Copies of clauses included in their full text
- Attachment (3) - Training Specification for Navy/Marine Corps Vocational/Technical (VOTEC) Skill Training Program
- Attachment (4) - Applicable Program of Instruction (POI) or curriculum.

NOTE: The contract provisions and/or clauses required for a VOTEC contract will depend upon the specific training being procured.

EXPLANATION OF CONTRACT SECTIONS. Section E, although brief in nature, must outline clearly all specific items (whether supplies or services) to be priced and delivered or performed under the contract. Section F describes in further detail those items listed in section E and references appropriate specifications which are listed in section M of the contract schedule and included as attachments. Unusual or special conditions or provisions, such as contractor travel, are generally covered in section J. The titles of the other schedule sections are essentially self-explanatory.

An understanding of the above contracting information by training personnel is important since the heart of the contractual package for training is the detailed description of the training parameters and requirements prepared by the training personnel. In the event a particular curriculum or other required course of instruction does not contain specific terminal course objectives, assistance should be sought from the command or service school having cognizance for the type of training required. Curriculum assistance is also available from the Naval Education and Training Program Development Center, Pensacola, Florida.

SECTION VI

TYPICAL SURVEY FORMS

The VOTEC facility and curriculum survey forms included within this section may be used individually or as a total package during the process of evaluating public and commercial sources of basic skills training. The samples included are intended to be used as a basic guide to collect necessary data from which logical conclusions may be drawn during the selection process for the proper facility/contractor to provide the desired training.

A listing of aforementioned forms and comments for their use follows:

VOTEC Training Survey Forms:

- | | |
|--------|--|
| Part 1 | General Information |
| Part 2 | Instructional Approach |
| Part 3 | Facilities |
| Part 4 | Special Facilities for Training |
| Part 5 | Institutions with Dormitory Facilities |

VOTEC TRAINING SURVEY FORM

Part 1. GENERAL INFORMATION

Institution _____

Address _____

Date of Survey _____

A. PERSONNEL CONTACTED:

<u>NAME</u>	<u>TITLE</u>	<u>TELEPHONE</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

B. Courses of interest to VOTECS program:

<u>TITLE</u>	<u>LENGTH</u>	<u>REASON FOR INTEREST</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

C. Is institution interested in participating in VOTEC program?

Yes No

Under what conditions? Short range Long range Both

NOTES:

TAEK Report No. 21-2

Part 1. GENERAL INFORMATION (continued)

- D. Has institution had previous experience with VOTEC or other government or commercial training programs?
- E. Is institution controlled by: State___ County___ City___ or Independent___?
- F. List agencies providing licensing and/or accreditation for institution.
- G. Enrollment:
- | | <u>Full Time</u> | <u>Part Time</u> |
|----------|------------------|------------------|
| Day: | | |
| Evening: | | |
| Total: | | |
- H. List or attach standard tuition and fees schedule.
- I. Commuting distance to training facility from military installation.
- _____miles _____minutes

TAEG Report No. 21-2

VOTEC TRAINING SURVEY FORM

Part 2. INSTRUCTIONAL APPROACH

- A. Conventional lock step _____ Individualized _____
- B. Average class size _____
- C. Instructor/Student ratio: Classroom _____ Laboratory _____
Shop Area _____
- D. Typical Instruction: Classroom _____ % Seminar _____ % Programmed
text _____ % Lab/Workshop _____ % Self Study _____ % Testing _____ %
- E. Performance Testing: Written _____ Practical _____ Both _____
- F. Curriculum Committee: Staff _____ Industry _____ Community _____
Other _____
- G. Do library services include: Technical books and periodicals _____
Copying machine _____ Audio tapes _____ Microfilm and recorders
_____ Designated study spaces _____
- H. Do instructional services include: Audio tape _____
A-V materials _____ Instructional television tapes _____
Micro materials _____ Classroom training aids _____

NOTES:

VOTEC TRAINING SURVEY FORM

Part 3. FACILITIES

NOTE: Recommended Guidelines for Determining Adequate Space:

- (1) General classroom - 36 sq ft/student
- (2) Laboratory/Shop Area - 75 sq ft/student
- (3) Auditorium - 6 sq ft/student
- (4) Learning Center w/study carrel - 43 sq ft/student

A. Is training space adequate for:

Classrooms _____ Laboratory/Shop Areas _____ Auditorium _____
Study areas _____

B. Are classrooms within _____ or adjacent to _____ shop areas?

C. Are any safety violations obvious? _____ If yes, explain in Notes.

D. In your opinion, how do training areas appear considering the following criteria:

	Good	Marginal	Poor
<u>General appearance</u>			
<u>Condition of equipments</u>			
<u>Training aid availability</u>			
<u>Lighting</u>			
<u>Ventilation</u>			
<u>Heating and cooling</u>			
<u>Noise</u>			
<u>Sanitation</u>			
<u>Layout for student convenience</u>			

E. Is adequate student parking available? _____

VOTEC TRAINING SURVEY FORM

Part 3. FACILITIES (continued)

F. List eating facilities available on campus.

FACILITY	SERVICE			
	Breakfast*	Lunch*	Supper*	Snacks

*Insert time service available and approximate cost of meal.

NOTES:

TAEG Report No. 21-2

VOTEC TRAINING SURVEY FORM

Part 4. SPECIAL FACILITIES FOR TRAINING
(Use as required)

AIR CONDITIONING, HEATING, REFRIGERATION: Motors and compressors____
Electric systems____ Gas systems____ Ducting and installation____
Other____

AUTOMOTIVE SHOP: Engine diagnosis/tune up____ Engine buildup____
Electrical systems____ Transmissions____ Brakes____ Suspension
systems____ Body repair____ Other____

AUXILIARY ENGINES: Boilers____ Distilling____ Other____

COMMUNICATIONS (MAINT. & REPAIR): Synchro units____ Alarm, warning,
call bell____ Intercom sys____ Telephone____ Announcing____
Gyrocompass____ Selsyn instruments____ Other____

CONSTRUCTION: Woodworking/Millwork____ Light frame structure____
Roofing____ Painting____ Glazing____ Masonry____
Concrete____ Plumbing____ Other____

DIESEL ENGINES (OPERATION & MAINT.): Caterpillar____ International____
Cummins____ LD 465-1 Multifuel____ Other____

VOTEC TRAINING SURVEY FORM

Part 4. SPECIAL FACILITIES FOR TRAINING (continued)

ELECTRICAL CONSTRUCTION (INSTALLATION/REPAIR): High voltage_____

Low voltage_____ Underground_____ Generators_____

Powerplant control_____ Conduit install/repair_____ Lineman_____

FOUNDRY SHOP: Molder_____ Pattern maker_____ Wood_____ Metal_____

Plaster_____ Foundry facings_____ Casting: (Non-ferrous_____

Ferrous_____ Alloy_____) Cupola furnace_____ Core baking oven_____

Metallurgy_____ Thermite casting_____

MACHINE SHOP: Lathe(s)_____ Drill press_____ Shaper(s)_____

Bench grinder(s)_____ Milling machine_____ Boring mill(s)_____

Power hacksaw_____ Metal engraving pantograph_____ Other_____

METAL WORKING: Sheet metal_____ Gas cutting/welding_____

Arc welding_____ Rigging_____ Metal working_____

Steel erection_____

PRINT SHOP: Offset press_____ Platemaker (copier)_____ Platemaker

(burner)_____ Stapling machine_____ Drill (saw spindle)_____

Collator: (Manual_____ Auto_____ Photo lab_____ Letterpress_____

Varityper_____ Headliner_____ Light table_____ Copier_____

VOTEC TRAINING SURVEY FORM

Part 5. INSTITUTIONS WITH DORMITORY FACILITIES
(Use as required)

A. HOUSING:

Cost _____

Includes: Dormitory room _____
3 meals per day, 7 days per week _____
Laundry, Dry cleaning _____
Student clinic services _____

Capacity: Male _____
Female _____

Dormitory layout: (Sketch) Condition _____

Student(s) per room _____ Bay _____ Bldg _____

Furnished with:

Head facilities (per building):

Male: No. _____ Toilets _____ Urinals _____ Basins _____ Baths _____ Shwr _____

Female: No. _____ Toilets _____ Basins _____ Baths _____ Shwr _____

General condition _____

Telephone(s) _____ Per Bldg _____

Study facilities _____

Messing availability to housing _____

Building security _____

Copy of Dorm. Rules _____ Parking facilities _____ Fees _____

NOTES:

TAEF Report No. 21-2

VOTEC TRAINING SURVEY FORM

Part 5. INSTITUTIONS WITH DORMITORY FACILITIES (continued)

B. MESSING FACILITIES:

Capacity _____

Dining Hall condition: _____

Hrs. of operation: _____

NOTES:

Breakfast _____

Lunch _____

Dinner _____

Other _____

Quality of food _____

Dietitian _____

Kitchen _____ Condition _____

C. MILITARY ADMINISTRATION:

Office space: OIC _____ NCOIC _____ Clerk _____ Supply _____

Supply/Storage room: _____ Location(s) _____

Civilian housing: _____

Nearest military admin. support: (Orders, Travel, Finance) _____

Nearest airport(s): _____

Local transportation: _____

VOTEC TRAINING SURVEY FORM

Part 5. INSTITUTIONS WITH DORMITORY FACILITIES (continued)

D. COMMUNITY:

Population: _____

Transportation: _____

Chamber of Commerce: _____

Churches: _____

Hotels, Motels: _____

Housing: _____

Recreation: _____

Local Attitudes: _____

Medical Facilities: _____

SECTION VII

VOTEC SOURCES OF NAVY RELATED INSTRUCTION

The data contained in this section were collected and summarized during calendar year 1974. Each AVSC should collect and maintain within resource capability a current file of available training within its area of jurisdiction. Crossfeed of such information in summarized form between AVSC's is encouraged.

Information is provided as initial start data for 21 ratings by geographical area on pages 32 through 35. The remaining pages, 37 through 56, of this section provide training availability data on the following selected sites:

- . Charleston, South Carolina
- . Great Lakes, Illinois
- . Jacksonville, Florida
- . Memphis/Millington, Tennessee
- . Meridian, Mississippi
- . Norfolk, Virginia
- . Orlando, Florida
- . Pearl Harbor, Hawaii
- . Pensacola, Florida
- . San Diego, California

TAEG Report No. 21-2

VOTEC SOURCES OF NAVY RELATED INSTRUCTION

RATING	Jacksonville Area	Pensacola Area	Hawaii Area	Meridian Area	Charleston Area
Engineman	Florida Jr. College	Pensacola Jr. College Geo. Stone VOTEC Ctr.	Honolulu College		Trident TEC Col.
Equipment Operator					
Illustrator Draftsman	Florida Jr. College	Pensacola Jr. College Geo. Stone VOTEC Ctr.	Honolulu College Leeward College	Meridian College East Central College	
Interior Communications Electrician	Florida Jr. College	Pensacola Jr. College Geo. Stone VOTEC Ctr.		East Central College	
Machinist's Mate	Florida Jr. College	Pensacola Jr. College Geo. Stone VOTEC Ctr.	Honolulu College		Trident TEC Col.
Holder					
Pattern Maker					Trident TEC Col.
Ship's Serviceman		Pensacola Jr. College Geo. Stone VOTEC Ctr.	Leeward College		
Steelworker	Florida Jr. College	Pensacola Jr. College	Honolulu College	East Central College	Trident TEC Col.
Steward	Florida Jr. College	Geo. Stone VOTEC Ctr.	Kaplan College		
Storekeeper		Pensacola Jr. College	Kaplan College		

VOTEC SOURCES OF NAVY RELATED INSTRUCTION (continued)

	San Diego Area	Great Lakes Area	Orlando Area	Norfolk Area	Memphis Area
Engineer	City College Evening College	Triton College Gateway Tech.	Mid-Florida Tech. Vanderbilt College Seminole College		
Equipment Operator					
Illustrator	City College Evening College Grossmont College	Lake County College Gateway Tech. Triton College	Mid-Florida Tech. Vanderbilt College Seminole College	Norfolk VOTEC Ctr. Norfolk State College Thos. Nelson College	State Tech. Institute Memphis Area VOTEC
Interior Communications Electrician	Evening College Grossmont College	Gateway Tech. Triton College		Norfolk State College Thos. Nelson College	State Tech. Institute Memphis Area VOTEC
Machinist's Mate	City College Evening College	Triton College Gateway Tech.	Mid-Florida Tech. Seminole College	Norfolk VOTEC Ctr. Thos. Nelson College	Memphis Area VOTEC
Holder		Triton College			
Pattern Maker	Evening College				
Ship's Serviceman	Evening College	Lake County College Gateway Tech. Triton College		Norfolk State College	
Steelworker	Evening College	Triton College Gateway Tech.	Mid-Florida Tech. Seminole College	Norfolk VOTEC Ctr. Norfolk State College Thos. Nelson College	
Steward	Mass College Evening College	Triton College	Mid-Florida Tech.	Norfolk VOTEC Ctr. Norfolk State College	Memphis Area VOTEC
Storekeeper	City College Mass College Evening College	Lake County College Gateway Tech. Triton College	Mid-Florida Tech. Seminole College	Norfolk State College	

* Exceptional facility

TAEQ Report No. 21-2

VOTEC SOURCES OF NAVY RELATED INSTRUCTION (continued)

RATING	Jacksonville Area	Pensacola Area	Hawaii Area	Meridian Area	Charleston Area
Lithographer	*Florida Jr. College	Pensacola Jr. College			
Machinery Repairman		Pensacola Jr. College	Honolulu College	Meridian College	Trident TEC College
Yeoman "C"	Florida Jr. College	Pensacola Jr. College Geo. Stone VOTEC Ctr.	Kapiolani College	Meridian College East Central College	
Builder	Florida Jr. College	Geo. Stone VOTEC Ctr.	Honolulu College		
Commissaryman	Florida Jr. College	Geo. Stone VOTEC Ctr.	Kapiolani College		
Construction Electrician	Florida Jr. College	Pensacola Jr. College Geo. Stone VOTEC Ctr.	Honolulu College	Meridian College East Central College	Trident TEC College
Construction Mechanic	Florida Jr. College	Pensacola Jr. College Geo. Stone VOTEC Ctr.	Honolulu College		Trident TEC College
Disbursing Clerk	Florida Jr. College	Pensacola Jr. College Geo. Stone VOTEC Ctr.	Kapiolani College Leeward College		
Electrician's Mate	Florida Jr. College	Pensacola Jr. College Geo. Stone VOTEC Ctr.	Honolulu College	Meridian College East Central College	Trident TEC College
Engineering Aid	Florida Jr. College	Pensacola Jr. College	Honolulu College		Trident TEC College

* Exceptional facility

TAEG Report No. 21-2

VOTEC SOURCES OF MANY RELATED INSTRUCTION (continued)

RATING	San Diego Area	Great Lakes Area	Orlando Area	Norfolk Area	Memphis Area
Lithographer	City College Evening College	Triton College	Mid-Florida Tech.	Norfolk VOTEC Ctr.	Memphis Area VOTEC
Machinery Repairman	Evening College	Triton College Gateway Tech.	Mid-Florida Tech.	Norfolk VOTEC Ctr. Thos. Nelson College Norfolk State College	Memphis Area VOTEC
Yeoman "C"	City College Mesa College Evening College Klamath College	Lake County College Gateway Tech. Triton College	Mid-Florida Tech. Valencia College Seminole College	Norfolk State College Thos. Nelson College Norfolk VOTEC Ctr.	Memphis Area VOTEC
Builder	Evening College	Triton College Gateway Tech.	Seminole College	Norfolk State College	Memphis Area VOTEC
Comptroller	Mesa College Evening College	Triton College	Mid-Florida Tech.	Norfolk VOTEC Ctr. Norfolk State College	Memphis Area VOTEC
Construction Electrician	City College Evening College		Mid-Florida Tech.	Norfolk State College Norfolk VOTEC Ctr.	Memphis Area VOTEC
Construction Mechanic	City College Evening College Klamath College	Triton College Gateway Tech.	Mid-Florida Tech.		Memphis Area VOTEC
Disbursing Clerk	City College Evening College	Lake County College Gateway Tech. Triton College	Mid-Florida Tech. Valencia College	Thos. Nelson College Norfolk State College Norfolk VOTEC Ctr.	State Tech. Institute Memphis Area VOTEC
Electrician's Mate	Evening College Cresmont College	Triton College Gateway Tech. Lake County College	Mid-Florida Tech. Seminole College	Norfolk VOTEC Ctr. Norfolk State College Thos. Nelson College	State Tech. Institute Memphis Area VOTEC
Engineering Aid	Evening College	Gateway Tech. Lake County College	Valencia College	Norfolk VOTEC Ctr. Norfolk State College Thos. Nelson College	State Tech. Institute

* Optional facility

INSTITUTIONS OFFERING NAVY-RELATED CURR

[illegible]

PERING NAVY-RELATED CURRICULA

SELECTED		PROPOSED CANDIDATES																	
Yardman "C"	Builder	Commissary Man	Construction Electrician	Construction Mechanic	Disbursing Clerk	Electrician's Mate	Engineering Aid	Engineer	Equipment Operator	Illustrator Draftsman	Interior Communications Electrician	Machinist's Mate	Molder	Pattern Maker	Ship's Serviceman	Steelworker	Steward	Storekeeper	
251-510	3900-710	3000-800	5600-721	5800-612	2900-542	4400-662	5500-412	4300-652	5700-730	3700-414	4700-623	4200-651	5700-790	5100-790	3100-823	6000-411	3500-801	2800-551	
X	X	X		X	X	X		X		X	X	X	X		X	X	X	X	
X	X			X	X	X	X	X		X	X	X			X	X		X	
X					X	X	X			X*					X			X	
X					X	X	X			X	X							X	

39/10

B

INSTITUTIONS OFFERING NAVY-RELATED CU

			SELECTED								
			CODE								
				Lithography	Machining	Refrigeration	Welding	Builder	Carpentry	Construction	Electrician
INSTITUTION	DISTANCE FROM BASE	DESCRIPTION	SEC	3600	4000	2510	5900	3000	5600	5600	5600
			DOD	740	702	510	710	800	721		
Florida Junior College at Jacksonville Jacksonville, Florida	20-30 miles	A SACSS-accredited community college with 4 campus sites in Jacksonville. Total enrollment in excess of 40,000. Most technical training at new North Campus. Downtown center being developed. Some Navy programs under way.		X*		X	X	X		X	
* - Exceptional Facilities											

A

A

OFFERING NAVY-RELATED CURRICULA

ELECTED		PROPOSED CANDIDATES																		
		Refrigeration Technician	Builder	Commissary Cook	Construction Electrician	Construction Welder	Discharging Clerk	Electrician's Mate	Engineering Aid	Engineer	Equipment Operator	Illustrator Draftsman	Interior Communications Electrician	Machinist's Mate	Molder	Pattern Maker	Ship's Serviceman	Stenographer	Steward	Storekeeper
0	510	5900	8000	5600	5800	5400	6000	5500	5300	5700	5700	5700	5700	5200	5200	5100	3100	5000	3500	2800
2	510	710	800	721	612	544	662	412	652	730	414	623	651	790	790	823	411	801	551	
		X	X	X	X	X	X	X	X		X	X	X				X	X		

OFFERING NAVY-RELATED CURRICULA

SELECTED		PROPOSED CANDIDATES																		
		Refractory Repairman Welding Crew	Builder	Covered Cargo	Construction Electrician	Construction Mechanic	Discharge Crew	Electrician's Mate	Engineering Aid	Engineer	Equipment Operator	Illustrator Draftsman	Interior Communications Electrician	Technician's Mate	Holder	Pattern Maker	Ship's Steward	Shipworker	Steward	Storekeeper
1	251	3900	300	600	5800	2900	2600	500	300	5700	3700	4700	4200	5200	5100	3100	6000	3500	2800	
2	510	710	800	721	612	5-2	662	412	652	730	-14	623	651	790	790	823	411	801	551	
				X		X	X	X			X	X								
		X	X	X	X	X	X				X	X	X					X		

INSTITUTIONS OFFERING NAVY-RELATED CUR

			SELECTED								
			CODE	<div>Lithographer Machinist Reputation Yeoman Electrician Gunsmith Construction Electronics</div>							
	DISTANCE FROM BASE	DESCRIPTION		REC DOD	3600 740	1-00 702	251- 510	2900 710	3000 800	3600 721	580 61
Meridian Naval Air Station Naval Technical Training Center ("Stennis Center") Meridian, Mississippi											
Meridian Junior College Meridian, MS 39301	18 mi. (30 min)	A SACSS-accredited Junior College. 4 modern buildings on 27 acre campus. Offers 9 vocational and 5 technical programs.			X	X				X	X
East Central Junior College Decatur, MS	40 mi. (60 min)	A SACSS-accredited Junior College. 27 buildings of various ages, including 4 male, 2 female dorms on 200 acres. 7 vocational and 4 technical programs offered.			X	X				X	1
John Stennis Vocational Complex DeKalb, MS	22 mi. (30 min)	A small, single structure, secondary vocational school. Some adult students in evening. Limited facilities for a few skills.								X	1

A

A

PERING NAVY-RELATED CURRICULA

CTED

PROPOSID CANDIDATES

Man	Woman	Builder	C. 1541	Construction Electrician	Construction Electrician	Discharge Clerk	Electrician	Engineer	Engineer	Engineer	Equipment Operator	Illustrator	Interior Communications	Mechanics	Welder	Pattern Maker	Ship's Serviceman	Steelworker	Steward	Storeroomkeeper
251	3900	3000	600	5800	900	600	5500	300	5700	3700	600	200	250	5100	3100	6000	3500	2800		
510	710	900	721	612	5-2	662	512	652	730	414	623	651	790	790	823	11	801	551		
X			X	X		X		X		X	X	X								
X			X	X		X		X		X	X	X				X				
			X	X						X										

INSTITUTIONS OFFERING NAVY-RELATED

			SELECTED							
			CODE	<div style="display: flex; justify-content: space-between; padding: 0;"> <div>Lithography</div> <div>Machinery</div> <div>Repair Shop</div> <div>Welding</div> <div>Boiler</div> <div>Construction</div> <div>Electrical</div> </div>						
INSTITUTION	DISTANCE FROM BASE	DESCRIPTION		NEC DOD	3600 740	4400 702	2514 510	5900 710	3000 800	5660 721
Norfolk State College 2401 Corpew Avenue Norfolk, Virginia 23504	12 mi	SACSS accredited 4-year college. 100 acre campus. 11 modern, well-equipped buildings. Machine shop and foundry under construction. Dormitory space.			X	X	X	X	X	
Norfolk Vocational Technical Center 1300 Military Highway Norfolk, Virginia 23502	8 mi	Public Secondary/Adult Vocational School. Modern construction (1968) 30 acre campus, 125,000 sq. ft. space. Excellent, well-equipped classrooms, workshops, labs. Well-qualified instructors. SACSS accredited		X*	X	X	X	X*	X	
Tidewater Community College (Frederick) Portsmouth, Virginia	25 mi (40 min)	SACSS approved community college. 750 acre rural campus. Buildings date from WWI, formerly Navy/Marine. Large warehouse contains technical labs, classrooms, and workshops. Program of expansion in planning stage.				X				
Thomas Nelson Community College Hampton, Virginia 23366	15 mi (30 min)	SACSS accredited community college. 2 modern buildings, plus 1 under construction, on 38 acre campus. New Engineering Science building planned. Data links to 4 computers.			X	X				
* - Exceptional Facilities										

A

A

OFFERING NAVY-RELATED CURRICULA

SELECTED		PROPOSED CANDIDATES																		
Yachtman	Yachtman	Builder	Commissary	Construction Electrician	Construction Mechanic	Disbursement Clerk	Electrician's Mate	Engineering Aid	Engineman	Equipment Operator	Illustrator	Interior Communicator	Electrician's Mate	Machinist's Mate	Molder	Pattern Maker	Ship's Serviceman	Steelworker	Steward	Storekeeper
2514	5900	3000	6600	5900	2900	6600	5500	3000	5700	3700	4700	4200	2000	5100	3100	6000	3500	2800		
510	710	800	721	612	512	662	412	652	730	414	623	651	790	790	823	411	801	551		
X	X	X	X		X	X	X			X					X	X	X	X		
X	X	X*	X		X	X	X			X		X				X*	X			
X					X	X				X										
X					X	X	X			X		X					X			

47/48

B

47/68

B

INSTITUTIONS OFFERING NAVY-RELATED C

			SELECTED										
			CODE	Lithographer	Machinery	Repairman	Yeoman	"C"	Builder	Commissary	Man	Construction	Electrical
				NEC	3600	4400	2514	5900	3000	5600	5800	721	721
			DOD	740	792	510	710	800	721	721	721	721	721
INSTITUTION	DISTANCE FROM BASE	DESCRIPTION											
ORLANDO NAVAL TRAINING CENTER ORLANDO, FL 32813													
Mid-Florida Technical Institute 2900 West Oak Ridge Road Orlando, Florida 32809	10 mi	An Area Vocational School accredited by Florida State Dept. of Education. Has 5 air conditioned buildings, total classroom area of 175,000 square feet, 13 shops, 38 classrooms, 4 laboratories, 3 drafting rooms on 140 acre campus. Additional buildings under development.		X*	X	X				X	X		
Valencia Community College 1800 S. Kirkman Road Orlando, Florida 32811	10 mi	Community College accredited by Florida State Dept. of Education and Southern Association of Colleges and Schools. Modern campus opened 1971. Military personnel stationed in Florida considered residents for tuition.				X							
Seminole Junior College Sanford, Florida 32771	15 mi	Public Junior College accredited by Florida State Dept. of Education and Southern Association of Colleges and Schools. 170 acre campus. Phase I completed 1970. Incorporates area vocational school.				X	X						
* - Exceptional Facilities													
A													

A

ERING NAVY-RELATED CURRICULA

CTED

PROPOSED CANDIDATES

Yoman "C"	Builder	Commissary Man	Construction Electrician	Construction Mechanic	Disbursing Clerk	Electrician's Mate	Engineering Aid	Engineman	Equipment Operator	Illustrator Draftsman	Interior Communications Electrician	Machinist's Mate	Molder	Pattern Maker	Ship's Serviceman	Steelworker	Steward	Storekeeper
514	5900	3000	5600	5800	2900	4600	5000	4300	5700	3700	4700	4200	5200	5100	3100	6000	3500	2800
510	710	800	721	612	542	562	412	652	730	414	623	651	790	790	823	411	801	551
X		X	X	X	X	X		X		X		X				X	X	X
X					X		X			X								
X	X					X				X		X				X		X

49/50

B

INSTITUTIONS OFFERING NAVY-RELATED

			SELECTED							
BASE: PEARL HARBOR			CODE	Lithographer	Machinist	Repairman	Yeoman "C"	Builder	Carpentry	Electrician
LOCATION	DISTANCE FROM BASE	DESCRIPTION	SEC DOD	3600 740	4400 702	2510 510	5900 710	3000 800	5600 721	
Honolulu Community College Honolulu, Hawaii	.0 mi.	An accredited community college: 25 buildings on a 20-acre campus. Shops and Labs for over 20 trade and technical areas			X		X		X	
Kapiolani Community College Honolulu, Hawaii	8 mi.	Modern facilities on small campus. Principal buildings for business education, food service education, health service.				X		X		
Leeward Community College Pearl City, Hawaii	5 mi.	A complex of modern buildings including Drafting and Automotive, General Technology, Business and Education, et al.				X				

A

PROPOSED CANDIDATES

	Builder	Commissary Man	Construction Electrician	Construction Mechanic	Disbursing Clerk	Electrician's Mate	Engineering Aid	Engineman	Equipment Operator	Illustrator/Draftsman	Interior Painter	Communications Electrician	Machinist's Mate	Molder	Pattern Maker	Ship's Serviceman	Steelworker	Steward	Storekeeper
5900	8000	5600	5800	2900	5600	5500	3300	5700	5700	700	200	5200	5100	3100	4000	3500	2800		
710	800	721	612	542	662	412	652	730	414	623	651	790	790	823	411	801	551		
X		X	X		X	X	X		X		X					X			
	X			X													X	X	
				X					X					X					

B

51/52

INSTITUTIONS OFFERING NAVY-RELATED

BASE: PENSACOLA NAVAL AIR STATION
PENSACOLA, FL 32508

			SELECTED						
BASE: PENSACOLA NAVAL AIR STATION PENSACOLA, FL 32508			CODE	Lithographer	Machinery Repairman	Vision Tester	Builder	Commissary Man	Construction Electrician
INSTITUTION	DISTANCE FROM BASE	DESCRIPTION	NEC DOD	3600 740	4400 702	2514 510	5900 710	3000 800	5600 721
George Stone Vocational Technical Center Pensacola, Florida	10 mi	A Technical-Vocational complex for high school and adult students. SACSS-accredited. Awards certificates.			X	X	X	X	X
Pensacola Junior College Pensacola, Florida		A 2-year SACSS-accredited Junior College. Campus consists of 23 buildings valued at \$21 million on 118 acres in NE Pensacola. Offer associate degree and certificate programs.		X	X	X			X

A

A

ING NAVY-RELATED CURRICULA

ED		PROPOSED CANDIDATES																		
Boatman "C"	Builder	Commissary man	Construction Electrician	Construction Mechanic	Disbursing Clerk	Electrician's Mate	Engineering Aid	Engineman	Equipment Operator	Illustrator	Interior Communications Electrician	Machinist's Mate	Molder	Pattern Maker	Ship's Serviceman	Steelworker	Steward	Storekeeper		
14	5900	3000	5600	5800	2900	2600	5500	4300	5700	3700	4700	4200	5200	5100	3160	6000	3500	2800		
10	710	800	721	612	542	662	412	652	730	414	623	651	790	790	823	411	801	551		
X	X	X	X	X	X	X		X		X	X	X			X		X			
X			X	X	X	X	X	X		X	X	X			X	X		X		

INSTITUTIONS OFFERING NAVY-RELATED

			SPECIFIED							
			CODE							
				Lithographer	Mechanics	Electrician	Boiler	Gun	Com	
INSTITUTION	DISTANCE FROM BASE	DESCRIPTION	NEC 3660 DOD 740	3600 702	2514 510	5900 710	3600 800	560 72		
SAN DIEGO COMMUNITY COLLEGES:										
1. San Diego City College	3 mi	All colleges accredited by California State Dept. of Education and Western Association of Schools and Colleges. Active military personnel are exempt from Tuition.		X		X		X		
2. San Diego Mesa College 7250 Artillery Drive	10 mi					X		X		
3. San Diego Evening College	Variable Locations	Classes are conducted at above campuses and at some other 56 sites*, including Naval facilities.		X	X	X	X	X		
4. Grossmont College El Cajon, Calif.	12 mi	135-acre campus, built 1964. Offers career vocational programs at post-secondary level.				X				

A

* Mostly apprentice programs
* Exceptional curriculum

A

* Mostly apprentice programs

** Exceptional curriculum

ING NAVY-RELATED CURRICULA

ED PROPOSED CANDIDATES

Room	Builder	Compressor	Construction Electrician	Construction Mechanic	Discharging Clerk	Electrician's Mate	Engineer's Aid	Engineer	Equipment Operator	Illustrator	Logbook	Communications	Rate	Holder	Pattern Maker	Ship's Serviceman	Steward	Stewardess
14	2400	3400	4400	5400	6400	7400	8400	9400	10400	11400	12400	13400	14400	15400	16400	17400	18400	19400
10	710	800	721	612	5-2	662	412	652	730	414	623	651	790	790	823	11	801	551
X			X	X	X			X		X		X						X
X		X			X												X	X
X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X
X				X		X				**X	X							

B

APPENDIX A

NOTE: This appendix is intended to stand alone. Therefore, the pages are numbered separately from the rest of the report. It is intended to be removed from the report and used as is.

TRAINING SPECIFICATION FOR NAVY/MARINE CORPS
VOCATIONAL/TECHNICAL (VOTEC) SKILL TRAINING PROGRAM

DEVELOPED BY

TRAINING ANALYSIS AND EVALUATION GROUP
ORLANDO, FL 32813

JANUARY 1975

TRAINING SPECIFICATION FOR NAVY/MARINE CORPS
VOCATIONAL/TECHNICAL (VOTEC) SKILL TRAINING PROGRAM

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1. Scope.	5
1.1 Purpose.	5
1.2 Application.	5
1.3 Constraints.	5
2. Applicable Documents	5
2.1 List of Documents.	5
2.2 Availability of Documents.	6
3. Training	6
3.1 Philosophy	6
3.2 Course Design Model.	6
3.3 Students	7
3.3.1 Student Selection.	7
3.3.2 Student Reporting Instructions	7
3.3.3 Student Liability Insurance.	7
3.4 Facilities	7
3.4.1 Inspection	7
3.5 Instructors.	7
3.5.1 Technical Qualifications	7
3.5.2 Other Qualifications	7
3.5.3 Certification.	8
3.6 Accreditation.	8
3.7 Scheduling	8
3.7.1A Instructional Periods.	8
3.7.1B Other Than Normal Hours.	9
3.7.2 Due to Absence	9
3.7.3 Holidays	9
3.8 Student Attrition.	9
3.8.1 Resulting From Student Performance	9
3.8.2 Resulting From Personal Problems	9
3.8.3 Payment Under Attrition Conditions	10
3.9 Grading.	10
3.9.1 Approach	10
3.9.2 Recording Test Results	10
3.9.3 Ranking Students	10
3.10 Monitoring/Inspection.	10
3.11 Security	10
3.11.1 Security Clearances.	11
3.12 Reports.	11
3.12.1 Student Progress Reports	11
3.12.2 Special Reports.	11
4. Training Support	11
4.1 Contract Training Conferences.	11
4.2 Texts, Miscellaneous Tools and Materials	11

TRAINING SPECIFICATION FOR NAVY/MARINE CORPS
VOCATIONAL/TECHNICAL (VOTEC) SKILL TRAINING PROGRAM

TABLE OF CONTENTS (continued)

<u>Section</u>	<u>Page</u>
4.3 Availability of Government Furnished Equipments/Materials (GFE)/(GFM)	11
4.4 Food Service	12
4.5 Dormitory/Student Housing.	12
4.6 Medical Services	12
4.7 Transportation	13
5. Glossary of Terms.	13

TRAINING SPECIFICATION FOR NAVY/MARINE CORPS
VOCATIONAL/TECHNICAL (VOTEC) SKILL TRAINING PROGRAM

1. SCOPE

1.1 Purpose. This specification sets forth the general requirements for conducting Vocational/Technical (VOTEC) skill training at educational institutions and industrial training facilities for the Navy or Marine Corps. It is intended that specific provisions of this specification will be identified in the Request for Proposal (RFP) or other such contractual documents.

1.2 Application. This specification is intended for use as a contractual requirement; however, general guidelines and concepts are included that will be of interest to training officers and procurement personnel responsible for VOTEC training.

1.3 Constraint. This specification has been designed to be compatible with DoD 3005.2, Non-Industrial Facilities for Mobilization, and shall not be used in any situations which may cause conflict with the intent and purpose of the subject directive.

2. APPLICABLE DOCUMENTS

2.1 List of Documents. The following documents of the issue in effect on the date of the applicable invitation for Bids or Request for Proposals shall form a part of the specification to the extent specified therein:

Department of Defense

DoD 3005.2	Non-industrial Facilities for Mobilization
DoD 5220.22M	Industrial Security Manual

Marine Corps

MCO P1040.31	Career Planning and Development Guide, Volume I (Administration)
MCO P1040.33	Career Planning and Development Guide, Volume III (Marine Enlisted)
MCO P1500.12	Marine Corps Formal Schools Catalog
MCO P1510.23	Design of Course of Instruction

Navy

CNTINST 1540.1	Task Analysis as the Basis for Training
CNTINST 1540.2	Measurement of Student Achievement

CNTINST 1550.1 Systems Approach to Instructional Program Development

CNETINST 1550.3 Design Standards for Curriculum Outline and Instructor Guides.

2.2 Availability of Documents. Copies of manuals, specifications, standards, and publications, referenced within this specification and appendices hereto, required by the contractor for guidance should be obtained from the procuring activity or as directed by the Procuring Contracting Officer (PCO).

3. TRAINING

3.1 Philosophy. State-of-the-art educational technology postulates that efficient training programs match job performance requirements. This is achieved through use of a systems approach to training utilizing a modular concept of progressive learning experiences to attain predetermined performance standards. A student is "trained" when he has demonstrated the ability to perform the stated objectives or performance standards.

A systems approach to training further implies:

1. A definition of the training task based upon job task analysis that has identified the required skills within the training task.
2. The use of terminal and enabling behavioral objectives based upon identified skills and subskills to achieve an acceptable base line of student performance.
3. The use of criterion referenced measurements to determine when acceptable base line student performance has been achieved.
4. The use of criterion referenced measurements to identify and correct student deficiencies as they occur rather than at the end of a course of instruction.
5. A validated instructional program sensitive to individual student need even though instruction is presented utilizing a group approach.

3.2 Course Design Model. Following the philosophy of paragraph 3.1 above, a phase or modular training system based upon learning objectives is recommended but does not inhibit a contractor's choice of approach. Empirical training techniques and materials currently being employed in the VOTEC field should be used. In general terms, VOTEC training required shall be a combination of criterion referenced academic and "hands-on" practical training conducted in a laboratory or shop setting to predetermined performance standards. See appropriate course appendix.

3.3 Students. The majority of students entering VOTEC training will be junior enlisted ratings that have recently completed recruit training. Typically, they range in age from late teens to mid-twenties. They may be male or female and from a variety of socio-economic and ethnic backgrounds.

3.3.1 Student Selection. All students will meet Navy/Marine Corps prerequisite entry requirements for the course of instruction concerned.

3.3.2 Student Reporting Instructions. Students reporting for training will be directed to report to a designated individual at the contractor's facility. The names of authorized students for each training course will be provided to the contractor prior to the course convening date. The contractor shall insure that only those personnel selected by the Government are admitted for attendance and participation in training programs procured under the provisions of the contract.

3.3.3 Student Liability Insurance. Contractor furnished student accident liability insurance shall be a consideration of the contractual document. Amount and benefit provisions of such insurance policy coverage may vary according to the type of training being conducted but should meet regulatory guidelines of the Federal Government.

3.4 Facilities. For the purpose of this specification, facilities include classrooms, laboratories, shop areas and the like where training is conducted.

The contractor shall provide a minimum of 36 square feet of classroom floor space and a minimum of 75 square feet of laboratory/shop floor space per student. Space shall be sufficiently soundproof to insure that instructors can be understood and distractions are kept to a minimum. The contractor shall provide adequate heating, cooling, lighting, laboratory facilities, consumable supplies, and laboratory classroom furniture necessary for the health, comfort, and convenience of the student. Exceptions due to large-size equipments or unusual training may be granted on a case-by-case basis.

3.4.1 Inspection. Inspection and approval rights pertaining to the training area prior to and during the period of contractual effort shall be reserved for the PCO or his designated representative.

3.5 Instructors.

3.5.1 Technical Qualifications. All instructors shall possess a thorough technical knowledge of the subject to be taught and be able to demonstrate individual ability to perform tasks that will be required in the practical or laboratory/shop portion of the training course.

3.5.2 Other Qualifications. The instructor shall have experience as a VOTEC training instructor, which includes successful completion of an instructor training course, or equivalent training and experience. He, as

an educator, shall have a professional understanding of the principles of learning and teaching methods and be able to demonstrate the ability to apply such principles and methods.

3.5.3 Certification. Instructors shall possess a current certification for specific area of instruction being conducted. Approved issuing authorities are:

1. State or Federal Government

or

2. A professionally recognized agency meeting the approval of the contracting officer or his designated representative.

3.6 Accreditation. Accreditation/certification provides a reasonable warranty that VOTEC facilities and staff meet an acceptable level of professionalism. Commercial basic skill training programs approved by the following agencies are considered acceptable and meeting the Vocational Education Amendments Act of 1968 and the Civil Rights Act of 1964, as amended:

1. Department of Health, Education and Welfare
2. National Association of Technical and Trade Schools (NATTS)
3. Department of Labor
4. State Board of Education
5. State bureaus of schools or other nationally-recognized accreditation agencies such as the Southern Association of Colleges and Schools
6. Certain other professional organizations. (See following paragraph.)

It is recognized that agencies such as NATTS, regional commissions on occupational education institutions, certain nationwide trade unions, and other industrial organizations offer valid credentials to training activities and shall be considered on a case-by-case basis. Vocational/technical training shall be conducted only by contractors able to meet accreditation criteria acceptable to the PCO or his designated representatives.

3.7 Scheduling.

3.7.1A Instructional Periods. Classes will be conducted five days per week, Monday through Friday, not to exceed six hours of instruction per day. Instruction may include formal classroom instruction,

individualized self-paced instruction, laboratory practical type training experience, hands-on shop experience, or other innovative instructional approaches, but shall at all times be adequately supervised by a certified instructor. Students may be scheduled an additional two hours per day for library-type research, study periods, and counseling. The contractor may at his discretion occasionally deviate from the above general guidelines providing a cohesive course of instruction meeting the contract requirements is met.

3.7.1B Other Than Normal Hours. In the event unique training requirements dictate instructional activities be pursued during normal shutdown hours; i.e., evenings and weekends, such exceptions should be mutually agreed upon in writing by the contractor and PCO or his designated representative prior to commencement of training.

3.7.2 Due to Absence. In the event student absences of short duration due to illness or other unavoidable circumstances adversely affect a student's training progress, the contractor may request an extension of training time on a day-for-day basis for the student concerned. Such requests shall be directed to the PCO or his designated representative for approval since a contract change warranting a price adjustment may be involved.

3.7.3 Holidays. Classes shall not be conducted on a legal holiday(s), a legal day(s) of mourning, or an institutional holiday(s) normally granted to regular students. Contract period, if required, will be automatically extended at no additional cost to the Government for such holidays to insure completion of the required instruction under the contract.

3.8 Student Attrition.

3.8.1 Resulting From Student Performance. If, at any time, the contractor engaged in giving instruction under a contract shall be of the opinion that the instruction of any student should cease, the PCO, or his designated representative, shall be immediately notified of that fact by the contractor via telephone and followed within three working days by written verification. Further instruction to such student shall continue except in gross misconduct cases until a case investigation has been conducted by the PCO or his designated representative and official notification to continue training or eliminate such student from the instructional program has been received. Expediency by both the contractor and the Government is required. Directions to the contractor shall be relayed to the contractor by the PCO as soon as practical via telephone with written verification to follow within five working days of receipt of contractor's written report.

3.8.2 Resulting From Personal Problems. In the event of a severe student personal problem such as accident, prolonged or critical illness of student or immediate member of family, or death in family, a procedure similar to that contained in paragraph 3.8.1 shall be followed. Only military authority, however, has authority to grant emergency leave of absence in such situations.

3.8.3 Payment Under Attrition Conditions. Payment for services rendered under above situations shall follow a schedule established by mutual written agreement between the contractor and PCO prior to or as part of the contract award.

3.9 Grading.

3.9.1 Approach. During the conduct of the training course(s), the contractor (instructor) shall continually monitor each student's performance. Following the recommended systems approach to training will result in judicious use of criterion referenced pretests, progress tests, and post tests as part of the evaluative process. Criterion test procedures rate individuals with respect to a specified standard of performance in relation to the achievement of the course objectives. Stated another way, the student should be told what he or she is to learn, assisted during the learning process, and tested to ensure learning has been accomplished. Grading, as such, shall be a tool to assist the learning process, not a separate entity unto itself.

3.9.2 Recording Test Results. The following information as a minimum shall be recorded for each written test administered in addition to individual student record entries:

1. Course number and title
2. Dates of testing
3. Number of students tested and class number
4. Identification of the particular test (and test version)
5. Percentage of students achieving the established minimum standard (qualifying).

3.9.3 Ranking Students. Since criterion testing places emphasis on every student's accomplishment of the same objectives at the same minimum standard or level of proficiency, the ranking does not occur.

3.10 Monitoring/Inspection. The Government reserves the right to visit contractor training areas periodically in order to assure compliance with the contract provisions in consonance with Armed Service Procurement Regulation (ASPR). Any visit under the contract by Government personnel shall be coordinated with the school supervisor prior to inspection and an exit interview will be conducted with the supervisor prior to departing. All planned instructional materials and data must therefore be reviewed and concurred in by both the contractor and the PCO or his designated representative prior to contract award.

3.11 Security.

3.11.1 Security Clearances. It is not anticipated that VOTEC training will require security clearances. In the event security clearances are required, the contract shall reflect such requirement by inclusion on DD Form 254.

When required, security regulations shall apply to personnel, training materials, and space being utilized for the training program. Security under the administration of the cognizant field contract administration activity shall be in accordance with the Industrial Security Manual (DoD 5220.22-M).

3.12 Reports.

3.12.1 Student Progress Reports. Tests should measure the student's ability to perform skills taught during formal instruction. Records shall be maintained on each student to cross-reference training modules completed to the student's progress toward skill performance certification. For this purpose, a sign-off sheet for objectives met is adequate. Student progress reports shall be submitted according to the contract schedule.

3.12.2 Special Reports. Such reports shall be submitted by the contractor in cases of prolonged student absenteeism, classroom misconduct, or other situations not compatible with the training program. When such instances occur, the PCO or his designated representative should be immediately notified by telephone and directions requested for report submission.

4. TRAINING SUPPORT

4.1 Contract Training Conferences. Within 15 days after receipt of the solicitation to bid, the contractor shall confirm in writing to the procuring contracting officer a date acceptable to the contractor for a precontract award training conference. The conference shall be convened at such time and place as agreed upon by both parties. One calendar month lead time shall be allowed the contractor to adequately plan and prepare the conference agenda. At the training conference, the contractor shall make a detailed presentation of the proposed training program and data as may have been developed and are required to define and evaluate the contractor's training approach. The contractor, procuring activity, PCO, training support agent and training agent, or their designated representatives, as appropriate, shall review the training program and shall reach an agreement upon detailed requirements of the training to be provided.

4.2 Texts, Miscellaneous Tools and Materials. Such items provided by the contractor are not to exceed the usual charge to regular students. All charges for instruction, textbooks, course materials and supplies shall be specified in the contract schedule.

4.3 Availability of Government Furnished Equipments/Materials (GFE)/(GFM). Such materials, equipments and supplies that are purely military in nature and designated as a requirement for the course of instruction may be

provided to the contractor for the period of the contract. The details for providing, use of, and return of such materials are an agenda item of the contract training conference. Such agreements shall meet the provisions of published Government standards for such actions, which generally state that the contractor is responsible for any losses incurred and is expected to return such items in like condition as received, except for reasonable wear and tear.

4.4 Food Service. Provisions for student messing shall be as specified in the contract schedule. Requirements may range, dependent upon location of training site, from a Government-furnished meal ticket to three meals per day, seven days per week at a contractor facility or variations thereof. Other-than-Government dining facilities utilized in the conduct of the training program concerned shall meet standards of the state restaurant and/or education code for the type of facility concerned or such other criteria acceptable to the PCO or his designated representative.

4.5 Dormitory/Student Housing. Living accommodations for conduct of VOTEC training shall be as specified in the contract schedule. For purposes of this specification, dormitory/student housing facilities are defined as living quarters meeting generally accepted criteria in the following areas:

Space - to include living, sleeping, and study areas.

Safety - to include fire protection, emergency exits, and other appropriate safeguards against hazards.

Sanitation - adequate provisions for bathing and personal hygiene.

Environmental - to include ventilation, lighting, heating and cooling.

Furnishings - to include bedding, furniture, linens, and like items.

Cleanliness - to include general cleanliness and state of repair of facilities.

General Services - to include janitorial, linen, laundry, and telephone.

Miscellaneous - to include availability to dining facility, recreational areas, and public transportation.

Such accommodations shall be subject to inspection and approval by the PCO or his designated representative.

4.6 Medical Services. Dispensary type medical services, consisting of first aid and other emergency treatments normally available to regular or resident students, will be an item of contract consideration.

4.7 Transportation. Transportation between the training facility and dormitory/student housing areas shall be as specified in the contract schedule. In the event transportation is required and furnished by the contractor during performance of the contract, it shall be his responsibility to procure and maintain insurance meeting the standards acceptable to the PCO or his designated representative.

5. GLOSSARY OF TERMS

CONTRACT SKILL TRAINING. Those instructional and technical services provided to DoD personnel by commercial or industrial companies and institutions (public or private) by qualified instructors, craftsmen and technicians. Related to core mechanical and technician training in the vocational skills area leading to military job qualification and certification. See Vocational/Technical training (page 18).

CURRICULUM.

1. All training, both military and technical, conducted within a school.
2. An expansion of the curriculum outline into specific topics, along with detailed topic objectives, to include behavior, conditions, and standards.
3. Same as Program of Instruction (POI).

EVALUATION. A logical, deliberate process of making judgments and decisions to appraise the value of a method, procedure, or process. In training, it consists of the following steps:

1. Determining the purposes or objectives
2. Determining the criteria
3. Obtaining information
4. Making judgments
5. Making decisions
6. Recording results.

GOVERNMENT FURNISHED EQUIPMENT (GFE). Equipment which has been selected and is to be furnished by the Government to a contractor or Government activity for installation in, or use with, or in support of the training programs. For purposes of this document, manuals, publications, and drawings, sometimes referred to as Government Furnished Materials (GFM), are included.

INSTRUCTION. The process that occurs during the transfer of knowledge or skills to the learners as a result of planned experiences related to an area of knowledge or endeavor.

INSTRUCTIONAL UNIT. An assembly of lessons which have been integrated either to complete a usable bit of knowledge or skill, or to aid in scheduling a course or program. The basic components of courses. Sometimes referred to as Instruction Module.

INSTRUCTOR. The person doing the teaching. The term "instructor" is commonly used in lieu of "teacher" which is reserved primarily for those positions related to pure academic pursuits.

JOB. A sum total of all the functions or tasks performed within a rating or billet; a Military Occupational Specialty (MOS) or Navy Enlisted Classification (NEC).

JOB TASK ANALYSIS. A procedure for determining the tasks that either are, or should be, performed by personnel occupying a given type of position or fulfilling a given function. Also known as Task Analysis or Skill Analysis.

LEARNING REQUIREMENT ANALYSIS. An analysis of job or task requirements to determine specifically what the student needs to learn. The analysis specifies entry level behaviors, enabling objectives, and terminal performance criteria in the affective, cognitive, and motor performance areas.

LESSON GUIDE. An organized outline of a single lesson topic. It is individual in nature, usually reflecting accepted knowledge or procedures for a specific training situation. Also known as Lesson Plan or Program of Instruction.

METHOD. The means, techniques, procedures used during instruction. There are many methods appropriate for use. Included may be such processes as lecture, recitation, laboratory, examination, study periods, demonstrations, use of training aids, group discussions, reviews, demonstration-performance, panel discussions, role playing, case studies, craftsman, programmed instruction, and coach and pupil methods.

TRAINING PLANNING CONFERENCE. The principal planning conference formally or informally scheduled for the purpose of developing and documenting personnel and training support requirements for new or modified systems or development of a course of instruction.

OBJECTIVES.

1. Behavioral objectives are objectives written in a specified manner in order to achieve a clear and complete statement of instructional intent. Specifically, the following three conditions must be met:

a. Describe explicitly what a student must be able to do upon completion of instruction, clearly identifying the kind of performance that he should be capable of exhibiting.

b. State the important conditions under which the student demonstrates his mastery of the objective, describing elements of the situation fully enough so that the desired performance is clearly distinguishable from other possible behaviors.

c. Specify the standard of performance a student must meet in demonstrating his attainment of the objective, establishing the minimum level acceptable.

2. Learning objectives are an identification, in terms of trainee performance, of the knowledges and skills to be acquired by a learner. Nearly all learning objectives are composed of three elements:

a. Behavior. Identifies what the trainee will do to demonstrate what he has learned. Achievement is normally demonstrated by means of a performance test or a written achievement examination or both.

b. Conditions. Describes the conditions (aiding or limiting factors) under which the desired performance is to be demonstrated.

c. Standards. Defines the standards (accuracy or proficiency) which the performance must meet.

3. Performance objectives are a set of specific skills or knowledges which the student must learn and be able to demonstrate upon completion of training. Sometimes referred to as Terminal Objectives.

PROCURING ACTIVITY. The activity assigned the responsibility for procuring or providing the supplies or services.

PROCURING CONTRACTING OFFICER (PCO). The Government contracting officer directing and administering the procurement through the award of the contract and the signing of the actual contractual documents. Administration of portions of the contract after award may be delegated to a designated representative.

READABILITY. The ability to be read and understood. Normally used in describing a difficulty level of material in terms of a standard educational level. A number of testing methods are used to validate readability levels. Trainee materials should not exceed the 9th grade reading level for VOTEC training.

SKILL. Demonstrated ability to use knowledge effectively or capably perform a task.

STUDENT. Generally synonymous with "trainee." However, there is a trend in the direction of terming a person in recruit training, or first follow-on training, as a "trainee" and other personnel under instruction as "student."

SUBJECT. A major division of organized knowledge, such as electronics or aeronautics.

SYSTEM. A composite of subsystems, assemblies, skills, or techniques capable of performing and/or supporting a desired task. A system includes related facilities, items, materials, services, and personnel required for its operation to the degree that it can be considered a self-sufficient item in its intended environment.

SYSTEMS APPROACH. The coordinated integration of relevant subject matter, student, and instructor activities, equipment and facilities, and instructional methods to achieve specific, job-oriented learning objectives.

TASK ANALYSIS. A method by which the knowledge, skill, and effective elements of task performance are systematically examined and recorded. A task analysis brings into focus such items as the classes of behaviors, conditions of performance, and the degrees of proficiency required. Also known as Skill Analysis and Job Task Analysis.

TESTS.

1. Achievement Test. A general term for tests designed to measure relative accomplishment in a specific area.
2. Advancement Examination. An examination given periodically to Navy enlisted personnel to help select those who are to be advanced in rating and pay grade based on the qualifications established by the Manual of Qualifications for Advancement (NAVPERC 18063 series).
3. Criterion Test. A measurement tool used to measure observable behavior.
4. Diagnostic Test. An examination used to spotlight areas of student difficulty with subject matter or the learning situation enabling the instructor to better allot his time according to the difficulty of the individual topic or unit to be taught; a pretest to determine the student's entering level of knowledge.
5. Identification Test. A test in which the student is required to recognize a piece of equipment, a picture of equipment, a verbal description, or its function. May be a performance test, a written test, or other type of test.
6. Performance Test. A sample work situation in which a person being tested performs a practical task for measurement of skill capability against predetermined standards.

7. Pretest. A test administered prior to a course, area, unit, topic, or other portion of a course, to determine knowledges, skills, and attitudes held by a student.

8. Proficiency Test. A test which is designed to measure a person's capabilities in terms of job performance. It may be composed of both performance tests and written tests. A Performance Test is sometimes defined as a Skill Demonstration, while a Proficiency Test is defined as a Comprehensive Procedure used to examine the person's capability to do what the job requires.

9. Progress Test. A test administered at some point in a course, area, unit, topic, or other portion of a course, to determine the degree to which students have accomplished the learning desired.

10. Qualifying Test. A test administered to determine whether a person is qualified for a task for which they have been selected or trained, or for which they are being considered. A Qualifying Test can be constructed as a special type of Progress Test. "Qualifying test" may also be applied to tests used for selecting personnel for training.

11. Quiz. A short test administered by the instructor to measure achievement on material recently taught or on any small, newly completed unit of work.

12. Written Test. A test in which a person demonstrates their capabilities by written techniques. Not usually a Performance Test, and hence is usually a measure of supporting knowledges rather than skills.

TRAINED STUDENT. A student that has successfully demonstrated achievement of training course performance objectives. For contractual purposes, a "trained student" is a deliverable item for which full course payment is made.

TRAINING ACTIVITIES.

1. Military commands which have a primary mission of conducting or supporting training.

2. The institutions or commercial and industry activities at which courses are offered.

TRAINING AGENT. A bureau, command, office, or headquarters exercising command of, and providing support of, some major increment of the Government's total training effort. Also known as Training Agency.

TRAINING AID EQUIPMENT. Audio-visual equipment which is used by the instructor or student to enhance the process of teaching or learning; and which is not itself the subject of instruction (except when its use or maintenance, in the training environment, is the subject of instruction);

and which generally has applicability for purposes other than training. Sometimes called Instructional Aids Equipment.

TRAINING EQUIPMENT. Equipment designed for training purposes which is used by the instructor or student as an element of the process of teaching or learning. It may be subjected to repeated or continuing usage over an extended period of time without immediate degradation of its useful characteristics. Durable material which is to be expended is not included.

TRAINING PROGRAM. An assembly or series of courses or other requirements which have been organized to fulfill a broad overall training objective.

TRAINING REQUIREMENT.

1. A requirement to train personnel in a specified quantity to perform identified duties and thereafter be available for assignment to the duties at a specified time.

2. A requirement for a training or educational program which will produce trained personnel for an identified purpose.

3. The performance which is required of a person in order to be effective in a given situation.

TRAINING SUPPORT. The providing of resources, such as personnel, funds, facilities, hardware, course materials, and services required to accomplish a training task.

TRAINING TASK ANALYSIS. A system for proceeding from an inventory of tasks, such as that provided by a job task analysis, to an organized set of both terminal and enabling training objectives.

UNIT OF INSTRUCTION. An assembly of lessons which have been integrated either to complete a usable bit of knowledge or skill or to aid in scheduling a course or program. The basic components of courses. Same as "Instructional Unit."

VOCATIONAL/TECHNICAL TRAINING. Vocational/Technical (VOTEC) training is that which teaches occupational skills. It includes vocational shop courses and technical or related technical subjects within the industrial arts field. "Hands-on" practice to develop required skills is inherent within VOTEC training. The objective of such training is to provide the student with entry level knowledge/skill qualifications within a specified craft or trade. Such training may be utilized for attainment of apprentice, journeyman or craftsman certification dependent upon existing standards.

* * *

TAEG Report No. 21-2

APPENDIX B

NOTE: This appendix is intended to stand alone. Therefore, the pages are numbered separately from the rest of the report. It is intended to be removed from the report and used as is.

VOTEC TRAINING SPECIFICATION FOR
NAVY LITHOGRAPHER (LI) SKILL TRAINING
COURSE DURATION: 240 HOURS

This Specification is to be used as an
Attachment to the Training Specification

DEVELOPED BY

TRAINING ANALYSIS AND EVALUATION GROUP
ORLANDO, FLORIDA 32813

JULY 1974

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
I GENERAL RATING.	3
II DEFINITION OF LITHOGRAPHER-APPRENTICE BASIC SKILL TRAINING	3
III DESCRIPTION OF TRAINING	3
IV STUDENT ENTRY REQUIREMENTS.	3
V COURSE OUTLINE - LITHOGRAPHER (LI 3/4).	4
VI COURSE PERFORMANCE OBJECTIVES	7
VII TEXTS, EQUIPMENT AND SUPPLIES	11
VIII STUDENT EVALUATION.	13
IX RECORDS AND REPORTS	15
X GLOSSARY OF TERMS	16

I. GENERAL RATING

"Lithographers perform graphic reproduction with lithographic, letterpress, and related graphic equipment; assist in determining the appropriate style or format for publication; produce and strip negatives and positives; prepare line and halftone camera copy; utilize darkroom equipment; process lithographic plates; set type and prepare forms for printing; operate process cameras, presses, and bindery equipment; and perform organizational maintenance on graphic equipment. These skills are applicable to single-color and multi-color printing."

II. DEFINITION OF LITHOGRAPHER-APPRENTICE BASIC SKILL TRAINING

Basic lithographer skill training is that theoretical and practical training, exclusive of military disciplines that will provide inexperienced entry level personnel with the basic skills to safely and effectively work at an apprentice level in a Navy print shop afloat or ashore.

III. DESCRIPTION OF TRAINING

A. The lithographer basic skill training course is designed to meet minimum skill level requirements at an apprentice level within the Navy. Thus, the training reflects concentration upon proficiency in the area of single-color lithographic processes. These processes include copy composition, production of photo lithographic negatives and plates, operation of offset printing machines, and associated bindery and finishing operations. Orientation type training only is included at the apprentice level for letterpress and multi-color printing processes since they are considered journeyman skills to be developed later in the career field as required.

B. These skill training requirements were developed from current (1974) known shipboard print shop equipment allowance lists and required training to support those equipment allowance lists estimated by experienced personnel from elements of the Management Office, Navy Publications and Printing Service.

IV. STUDENT ENTRY REQUIREMENTS

A. General:

Navy student entry requirements and administrative procedures follow guidelines cited in the Manual of Qualifications for Advancement (NAVPERS 18068C) and Chapter XII of the Enlisted Transfer Manual (NAVPERS 15909B) as amended.

B. Prerequisites:

1. Screening criteria: Standard score of 90 or higher in aptitude area GEN TECH.

2. Physical: No special physical requirements.
3. Security clearance: Not required.
4. Other: Completion of Navy recruit training.

V. COURSE OUTLINE - LITHOGRAPHER (LI 3/4)

Duration - 240 hours 8 weeks 40 training days (6 hrs)

<u>TOPIC</u>	<u>RECOMMENDED TIME</u>
A. Introduction	1 DA
1. Course Orientation	
a. School Briefing	
b. Course Outline	
c. Grading	
d. Safety	
2. Printing	
a. Papers and Inks	
b. Processes and Equipment	
B. Cold Type Composition	4 DAYS
1. Familiarity with Typewriter	
a. Ribbons	
b. Reduction Guides	
2. Varityper or equal cold type composing machine	
a. Non-justifying	
b. Justifying	
3. Headliner or equal photo composing machine	
4. Mechanical Ruling and Lettering	
5. Press-on Lettering	
6. Clip Art	
7. Proofreading	30

<u>TOPIC</u>	<u>RECOMMENDED TIME</u>
C. Negatives	4 DAYS
1. Chemicals and Materials	
2. Negatives	
a. Line (90%)	
b. Halftone (10%)	
3. Positives and Paper Prints	
4. Enlargements/Reductions	
5. Opaquing	
6. Masking	
7. Deflat/Reflat (restripping)	
D. Plates	1 DAY
1. Paper	
a. Direct Image	
b. Photo Direct	
(1) Short Run	
(2) Long Run	
2. Metal	
a. Lithographic (photo mechanical)	
E. Lithographic Printing (Offset)	20 DAYS
1. 10" x 15" offset press	
a. Inspection and set-up	
b. Operation	
(1) Paper and metal plates	
(2) Line, halftone and solids	

<u>TOPIC</u>	<u>RECOMMENDED TIME</u>
c. Adjustments for paper sizes and weights	
d. Maintenance and repair	
F. Letterpress Printing	5-1/2 DAYS
1. Handset composition	
2. Makeup and lock up	
3. Make ready	
4. Printing	
5. Perforate, die-cut, score, serially number, crash print	
G. Bindery and Finishing Operations	3 DAYS
1. Collating	
a. Hand	
b. Machine (off-line)	
2. Finishing	
a. Folding	
(1) Hand	
(2) Machine	
b. Drilling and Punching	
c. Stapling	
(1) Side	
(2) Saddle	
d. Padding	
e. Cutler Operations	
H. Copy Machines	1/2 DAY

TOPIC

RECOMMENDED TIME

I. Navy Printing Seminar

1 DAY

- a. Navy Forms Management Guidelines
- b. Publication Management Techniques
- c. Regulations and Policy
- d. Support Available from NPPS
- e. Specialty Printing

VI. COURSE PERFORMANCE OBJECTIVES

A. Course performance or terminal objectives correspond to major subtitles listed in section V, Course Outline. These objectives include a single topic listed in the Course Outline or a grouping of appropriate topics within a single objective. Enabling objectives required to reach these terminal performance objectives have purposely been omitted to allow the contractor conducting the training a degree of latitude in the development of his course of instruction designed to meet the overall criteria of the terminal course objectives listed in paragraph B below.

SAFETY NOTE * All course objectives shall include shop safety practices, manufacturer's stated safety procedures for equipments involved in training and the use of operator related procedures and protective devices as appropriate although not specifically called out within individual objectives.

B. Terminal Performance objectives follow:

Objective #1

Outline Reference: V-A-1 (Course Orientation)

Provided handouts, course materials, schedules, and other appropriate materials the student shall be given an orientation to include school ground rules, the proposed course of instruction, grading procedures, and an introduction to safety stressing the importance of the student developing a safety conscious approach to printing operations.

Objective #2

Outline Reference: V-A-2 (Printing)

Provided appropriate texts and samples of materials the student shall be introduced to the basic printing processes and to basic types

of papers and inks. Upon completion of instructional period, student should be able to cite the primary features of major categories of paper stock, basic differences between types of inks and where to find in-depth information concerning paper and inks.

Objective #3

Outline Reference: V-B-1 (Typewriter)

Given a typewriter, ribbon, and typing guides, the student shall demonstrate the capability to change either cloth or carbon ribbons on manual or electric typewriters and adjust the typewriter for use with standard typing guides. Student must be capable of providing oral instruction for typewriter setup to yeoman and other personnel that would result in acceptable format and quality of input copy to the offset printing process. Production standard: None. * See Safety Note.

Objective #4

Outline Reference: V-B-2 (Varityper or equal, cold type composing machine)

Provided a varityper cold type composing machine or equal, machine instructions, paper, and rough draft copy of material to be printed; the student shall under the supervision of an instructor set the machine, select the type, and perform copy fitting procedures to compose camera-ready copy acceptable to the instructor. Machine types include both non-justifying and justifying equipment. Production standard: None. * See Safety Note.

Objective #5

Outline Reference: V-B-3 (Headliner or equal photo composing machine)

Provided a headliner photo composing machine or equal, machine instructions and film or paper, the student shall under the supervision of an instructor become familiar with machine procedures and capability. Performance level: Introductory-providing safety procedures to be followed by the operator for self practice and without damage to equipment. Production Standard: None. * See Safety Note.

Objective #6

Outline Reference: V-B-4/5 (Ruling and Lettering)

Given basic drawing and lettering equipments, materials, and instructions, the student shall demonstrate to the instructors satisfaction, a basic understanding of layout design standards applicable to simple forms design. Production Standard: None.

Objective #7

Outline Reference: V-B-6 (Artwork)

Provided samples of artist illustrations, clip art, lettering, and press type lettering, the student will identify each type of art, state the general usage of the sample and evaluate the sample in terms of size, color, spacing, and complexity for standard acceptability to the photolithographic process with an accuracy of 75%. Production Standard: None.

Objective #8

Outline Reference: V-B-7 (Proofreading)

Provided a handout containing proofreader's marks, unproofed material, and instructions, the student shall demonstrate a basic understanding of proofreading techniques and cite the importance of proofreading to the satisfaction of the instructor. Production Standard: None.

Objective #9

Outline Reference: V-C-1 (Chemicals and Materials)

Provided samples of chemicals and materials used in the photolithographic process, the student shall without error identify the liquid or substance, state its general use, and cite the safety precautions to be observed working with such substance. Production Standard: None. * See Safety Note.

Objective #10

Outline Reference: V-C-2 through 7 (Negatives)

Provided film, chemicals, and a process camera, the student shall select proper film, load the camera and copy easel, set camera for proper exposure, expose the film, and develop line negative and/or halftone negative on a 1 to 1 ratio, or a designated enlargement or reduction. The negative process includes making positives and paper prints, masking, opaquing, and deflat/reflat processes. Production Standard: Three units per hour. * See Safety Note.

Objective #11

Outline Reference: V-D-1 (Paper Plates)

Provided an electro-static or chemical type platemaking machine, input copy plates, and chemicals, if appropriate, the student shall according to manufacturer's specifications, set up the platemaking machine, select the exposure and timing, expose and process the plate. Finished plate must meet shop quality control standards for clarity and running. Production Standard: 10 per hour. * See Safety Note.

Objective #12

Outline Reference: V-D-2 (Metal Plates)

Provided a platemaking machine, masked negative, proper chemicals and plate, the student shall according to manufacturer's specifications set up the platemaking machine, select the exposure and timing, expose and process the plate. Finished plate must meet shop quality control standards for clarity and running. Production Standard: Eight per hour. * See Safety Note.

Objective #13

Outline Reference: V-E (Lithographic Printing (Offset))

Provided an offset printing press up to and including 11" x 17" size, ink, paper stock, chemicals, processed plates, and job order specifications, the student will inspect and set up the press for running, select proper materials, perform make ready according to job specification sheet, and produce a clear, legible single color line, halftone single page or multipage print run meeting the job specifications. During the print run, the student will perform minor adjustments to the equipment according to manufacturer's equipment specifications. Production Standard: 1500 impressions per hour. * See Safety Note.

Objective #14

Outline Reference: V-F (Letterpress Printing)

The student shall be able to state the difference between offset and letterpress printing. He shall be able to identify basic type styles and letterpress associated equipments and materials such as a composing stick, spacing materials, hand operated slug cutting and mitering machines, and presses. He shall perform or define make ready and operation of hand fed platen presses to include printing, scoring, perforating, numbering, and die cutting methods. Production Standard: None * See Safety Note.

Objective #15

Outline Reference: V-G (Bindery and Finishing)

Provided either manual or power operated equipment including collators, folders, paper drills, stitchers and cutters, the student will process printed materials according to the job specification sheet. During this process he will set up the machine, perform the tasks involved, making minor adjustments, according to manufacturer's specifications, and deliver a finished product meeting the requirements of the job specification sheet. Production Standards are:

Fold and perforate make ready	4 per hour
Fold and perforate run	850 sheets per hour
Collate make ready	6 per hour
Collate run	850 pieces per hour
Punch and drill	175 units (100 sheet) per hour
Staple, side	250 units (100 sheet) per hour
Staple, saddle	150 units (100 sheet) per hour
Padding	150 pads per hour

* See Safety Note.

Objective #16

Outline Reference: V-H (Copying Machines)

Student shall receive a general introduction to copying machines by a local area manufacturer's representative or other source to include general types and capabilities. Production Standard: None.

Objective #17

Outline Reference: V-I (Navy Printing Seminar)

Students shall receive an orientation to include the administrative and plant operation of a Navy printing facility in the following areas: Printing and binding regulations, Navy Forms Design Guidelines, Publications Management techniques, Speciality Printing sources, and the role of the Navy Publications and Printing Service to provide shore support to the lithographer. Production Standard: None.

VII. TEXTS, EQUIPMENT AND SUPPLIES

A. The following documents are appropriate as basic texts for lithographer training:

1. Rate Training Manual, Lithographer 3&2

Bureau of Naval Personnel, NAVPERS 10452-B. 1969. For Sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (Stock Ordering No. 05G0-131-0100).

2. Technical Manual, Offset Photolithography and Map Reproduction.

Headquarters, Department of the Army. TM 5-245, July 1970. May be ordered from Commander, USA - AKG Publications, 1655 Woodson Road, St. Louis, MO 63112.

3. Government Printing Office Publications

a. Catalog and Price List: Blank Paper and Envelopes, Inks, Glues, Miscellaneous Supplies and Services, August 1972.

b. United States Government Printing Office Paper Catalog, May 1972.

Orders and requests for further information concerning the two items above should be addressed to the Government Printing Office, Division of Plant Planning, Paper and Material Control Section, Washington, D.C. 20401 or by calling Code 149, extension 331 at the Printing Office.

4. Manufacturer's equipment handbooks, manuals, etc., for specific equipments utilized within a training program.

B. The following basic equipments with supporting items are recommended for conduct of lithographer basic skill training:

1. Composing equipment:

a. Cabinet, plate storage, w/imposing stone. (Thompson Model 1396-T or equal.)

b. Cabinet, type storage, 24-drawer capacity. (Thompson 12001-T or equal.)

c. Cold type composing machine (Varityper model 1010F or equal).

d. Cutter, lead, rule, and slug. (Rouse-American 20, Table Top or equal.)

e. Photocomposing machine (Varityper Headliner model 820 or equal).

2. Camera and platemaking equipment:

a. Cabinet, film storage, w/cutter, size 25" x 31" (NuArc model FS24C or equal).

b. Camera, process vertical, size 16" x 30" (Robertson model 432 or equal). Similar horizontal models are acceptable.

c. Dryer, film, size 20" x 24" (Southwind model 800 or equal).

d. Offset platemaking unit, flip-top, size 23" x 27" (NuArc model FY26L, w/pulsed xenon light source, or equal).

e. Sink, temperature-controlled, size 36" x 70" (Kreonite model 36-320E, W/RHR, or equal).

f. Table, lineup and register, size 22" x 20" (NuArc model RR26F or equal).

g. Table, plate developing, size 26" x 40" (NuArc model RJB40 or equal).

3. Printing Press equipment:

a. Press, duplicating, offset, size 10" x 15" (Addressograph-Multigraph model 1250 or equal).

OR b. Press, duplicating, offset, size 11" x 17" (Addressograph-Multigraph model 1250 LW or equal).

c. Press, printing, platen, size 8" x 12" or 10" x 15" handfed (Chandler or equal).

d. Cabinet, ink, and roller storage. (Thompson model 15102-T or equal.)

4. Bindery equipment:

a. Collator, sheet, size 17" x 22" (Thomas-Pitney-Bowes model 60R10 or equal).

b. Cutter, paper, hydraulic, size 26-1/2" (Challenge series H, style 265 HB or equal).

c. Drill, paper, single spindle (Challenge, model JF or equal).

d. Folding machine, size 17-1/2" x 22-1/2" (Challenge heavy duty model 175 or equal).

e. Stitcher, paper (Sostitch model 7 or equal).

5. Related equipment:

a. Plate processor, photo-sensitive aluminum, size 12" x 20" (Metal-photo ZIP Processing Machine, model 14-3 or equal) (optional equipment).

b. Copier, electrostatic, and direct image offset platemaker, (size 10" x 15"), (A.B. Dick, model 675 or equal) (optional equipment).

c. Paper punch (GBC Combo, model 222KM), (manual), (optional equipment).

VIII. STUDENT EVALUATION

A. General

1. The approach of performance based skill training requires a continuous evaluation effort to identify student problem areas, effect remedial action, and to determine when a student has met baseline criteria for performance objectives within instructional units of the course. Such units may contain one or more of the following areas or phases:

- a. Theoretical or basic knowledge
- b. Demonstration of proper method of operation
- c. Demonstration of production standards for the operation being conducted. Note: Operator safety and safe shop practices are inherent in all evaluation.

B. Procedural Guidelines

1. The theoretical or basic knowledge and demonstration of proper method of operation shall constitute a phase weighted at 40 percent and meeting the associated production standard, if applicable shall constitute a phase weighted at 60 percent for individual instructional units. The combined totals of phases within the instructional unit shall meet a minimum of 80 percent successful completion in terms of 100 percent baseline performance criteria for each individual student.

2. Meeting of the 80 percent success baseline in terms of knowledge and performance goals may or may not occur during individual instructional units since practice will be required to gain proficiency in the production performance standard phase. If the production performance standard for a particular unit of instruction has not been met by a student, the instructor/evaluator may allow the student to progress to the next instructional unit provided the student has met the 80 percent baseline criteria for the theoretical or basic knowledge phase of the instructional unit under question. Otherwise, remedial training or an adverse action is indicated.

C. Grades

1. The ranking of students by numerical grade will not occur; however, the accumulative record of successful completion of unit performance objectives serves as a guide to student performance. This accumulative record shall be the basis for determination of a "trained student" in terms of the contractual effort. In other words, 80 percent success level in meeting all stated performance objectives of the course constitutes a trained student.

D. Production Standards

1. The following production standards represent typical journeyman and apprentice level production standards within the Navy Publications and Printing Service. Apprentice level lithographers are

expected to perform tasks similar to their journeyman counterparts at 1/3 to 1/2 of the production standard.

<u>Operation</u>	<u>Unit</u>	<u>Journeyman Std Per Hour</u>	<u>Apprentice Std Per Hour</u>
Negatives	8-1/2" x 11"	10	3
Paper plates, Short run (SR)	Master	137	75
Paper plates, Long run (LR)	Master	25	10
Metal Plates, exposing & developing	Plate	37	8
10 x 15 press make ready, SR	Make ready	38	12
10 x 15 press LR & metal	Make ready	15	7
10 x 15 press run	Impression	2900	1500
Fold/perforate make ready	Make ready	12	4
Fold/perforate run	Sheet	2595	850
Collate Make ready	Make ready	12	6
Collate run	Handling piece	2800	850
Punch/drill	Impact 100 sheet	350	175
Staple, side	Per unit	500	250
Staple, saddle	Per unit	300	150
Padding	Pad	300	150

IX. RECORDS AND REPORTS

A. General

1. Section 3 of the Training Specification for Navy/Marine Corps Vocational/Technical (VOTEC) Skill Training Program applies.

B. Student Records

1. Individual student progress sheets to be submitted at the completion of training shall cite the performance objectives and date of successful completion. The progress sheet will be open to the student concerned during counseling sessions with his instructor or upon special request. Such records shall be certified for accuracy by the training contractor prior to submission as directed by the procuring contracting officer or his designated representative.

2. Any other student records required are at the discretion of the contractor or as may be required by the procuring contracting officer to support payment for services received.

C. Reports

1. Student progress reports shall be submitted at an appropriate point approximately midway through the course and at course completion as required by the procuring contracting officer or his designated representative.

X. GLOSSARY OF TERMS

CLIP ART - Collections of readymade art.

COLD TYPE COMPOSITION - Typewritten or varityped composition prepared by methods that do not include materials produced with letterpress typesetting equipment.

COLLATE - To assemble pages (sheets) or signatures in correct sequence.

CRASHPRINT - Using metal type to make an impression on all copies of a carbon interleaved set.

DEFLAT - Separating the negatives from the goldenrod masking sheets so that the negatives can be easily filed, retrieved, and reassembled.

DIRECT-IMAGE PLATES - Plates which are imaged by typing, drawing, lettering, or imprinting directly on the plate.

DIE CUT (Die) - Any of various devices for cutting or forming material in a press.

ELECTROSTATIC PLATES - Plates produced by a process during which the image is transferred by a light-sensitive electrostatic charge on a special base, as in xerographic copying.

FLAT (STRIP) - To assemble photographic negatives or positives on goldenrod (clayboard) paper or vinyl acetate for contact exposure with a sensitized metal press plate. May contain art as well as text.

HALFTONE - Any photomechanical printing surface or the impression therefrom in which detail and tone values are represented by a series of evenly spaced dots of varying size and shape, varying in direct proportion to the intensity of tones they represent.

IMPRESSION - Inked image received by a sheet of paper or other material in a press or as it runs through the press.

- JUSTIFY - To adjust the space between words (or letters) to make all lines come out to the same length.
- LETTERPRESS PRINTING - Printing from raised surfaces, such as type and cuts.
- LITHOGRAPHY - A planographic method printing based on the chemical repulsion between grease and water to separate the printing from non-printing areas.
- LINE COPY - Solid copy, either text or art, suitable for photography without the use of a halftone screen.
- LONG RUN - Run refers to the number of impressions made on the press from a given press plate. Metal and some paper plates are designed for long runs (over 5000 impressions).
- LOCK UP - Process of locking type forms in the chase or metal frame in which the type form is wedged (locked) before placing it on the press.
- MAKE UP - Arrangement of type and cuts into columns and pages by the printer.
- MAKE READY - Preparation of the press to obtain proper printing impression including adjustment of feeder, grippers, side guide, pressure between plate and blanket cylinder, impression plate and ink fountain.
- MASKING - Blocking out areas of a sensitized film or plate from exposure to achieve light by use of such materials as goldenrod or red paper, aluminum foil, etc.
- MECHANICAL RULING - The process of using mechanical drawing equipment for basic forms design or composition.
- NEGATIVE - A photographic image in which the tones are reversed.
- OPAQUING - The process of blocking out defects or areas in a film where no light transmission is desired.
- OFFSET PRINTING - An indirect printing method in which an inked image is printed on a rubber blanket that, in turn, prints or offsets the inked impression onto a sheet of paper.
- PADDING - The process of making pads or tablets by cementing the edges of a stack of sheets. A pad generally consists of 100 sheets of paper.
- PERFORATING - Piercing the paper with a series of tiny dots or slits for easy separating of a section of a printed sheet after printing.

PLATE - In offset work, the paper or grained zinc or aluminum sheet causing the image.

PLATEN PRESS - Letterpress printing press on which the impression is made when a flat surface called the platen pushes the paper against the type. A job press.

POSITIVE - A photographic reproduction on a plate, paper or film, in which image densities are directly related to the tones of the originals.

PHOTO-DIRECT - An automated plate making process using camera procedures where reproduction copy is exposed on the plate itself without the use of film.

PHOTOMECHANICAL - Any reproduction process in which photography is used in combination with mechanical means to produce a printing surface.

PHOTOSENSITIVE - A coated material, sensitive to light or similar radiation that must be kept in cool, dark environment.

REFLAT (RESTRIP) - To reposition photographic negatives or positives on goldenrod flats, usually to accommodate another size press.

SCORE - To crease or dent paper stock so that it can be easily folded.

SHEET - A piece of paper, normally with a front and back page.

SHORT RUN - Run refers to the number of impressions made on the press from a given press plate. Short run refers to a type of plate used for runs less than 5000 impressions.

SPECIALTY PRINTING - Printing that requires special equipment or processes not normally found in the average print shop; e.g., tags, decals, binders, marginally punched continuous forms, silk screening, etc.

TAEG Report No. 21-2

APPENDIX C

NOTE: This appendix is intended to stand alone. Therefore, the pages are numbered separately from the rest of the report. It is intended to be removed from the report and used as is.

VOTEC TRAINING SPECIFICATION FOR
NAVY YEOMAN "C" (FLAG WRITER) TRAINING
COURSE DURATION: 14 WEEKS (551 HOURS)

This Specification is to be used as an
Attachment to the Training Specification

DEVELOPED BY

TRAINING ANALYSIS AND EVALUATION GROUP
ORLANDO, FLORIDA 32813

MARCH 1975

74

TABLE OF CONTENTS

<u>Section</u>		<u>Page</u>
I	GENERAL RATING.	3
II	DEFINITION OF YEOMAN "C" - FLAG WRITER.	4
III	DESCRIPTION OF TRAINING	4
IV	STUDENT ENTRY REQUIREMENTS.	4
V	COURSE OUTLINE.	5
VI	COURSE PERFORMANCE OBJECTIVES	13
VII	TEXTS, EQUIPMENT AND SUPPLIES	15
VIII	STUDENT EVALUATION.	16
IX	RECORDS AND REPORTS	17

I. GENERAL RATING

The basic rating for this position is Yeoman (YN), an administrative clerk. Yeomen perform the following duties:

- . Prepare and type correspondence and reports
- . Organize and maintain files
- . Perform officer personnel administration and accounting
- . Receive office visitors and handle telephone communications
- . Perform office secretarial duties
- . Perform secretarial duties in connection with investigations and trials
- . Maintain records and official publications
- . Work with duplicating and audio-recording equipment
- . Requisition office supplies

To qualify for the position, recruit training is followed by on-board training and school courses encompassing but not limited to:

- . Typewriting
- . Classified material
- . Correspondence and filing
- . Service records and personnel administration
- . Legal records and procedures

Advanced schools provide further training in:

- . Correspondence
- . Personnel administration and accounting
- . Legal records and procedures
- . Stenography
- . Leadership
- . Instructional procedures

Skills learned include:

- . Touch typewriting
- . Good English usage
- . How to handle classified material
- . Navy disciplinary system including courts-martial and courts of inquiry
- . Instructions relating to pay and allowances, travel and transportation, quarters and subsistence
- . Procedures for officer personnel administration

Yeomen work aboard ship and at shore stations.

II. DEFINITION OF YEOMAN "C" - FLAG WRITER

The successful graduate of Yeoman "C" training who has achieved a shorthand speed of 100 wpm or better is awarded the NEC 2514 and designated as "Flag Writer."

His duties involve the use of shorthand and typewriting at or above average rate of speed and quality of excellence; preparation of original Navy and business correspondence; composition and answering of social correspondence in accordance with social usage and protocol; exercise of high standard of demeanor, military bearing, personal appearance, and initiative in working with high ranking military officers and civilian officials, and provision of security of classified matter up to and including TOP SECRET.

III. DESCRIPTION OF TRAINING

Yeoman "C" training consists of 551 academic hours of training. Primary emphasis is upon the attainment of Shorthand Skill (439 hours). In addition, 80 hours are devoted to English Grammar and Usage, 17 hours to Social Usage and Protocol, 5 hours to Office Procedures, and 10 hours to Boards and Investigations. The purpose of this training is to enable the Yeoman to perform the functions required in support of the activities of officers of flag rank.

The training objective is to provide organized and intensive training for selected personnel in the secretarial techniques and knowledges commensurate for assignment of such personnel as "Flag Writers."

IV. STUDENT ENTRY REQUIREMENTS

YN 2 and above, in second or subsequent enlistment. GCT and CLER of 110 (no waivers). All trainees must be excellent typists with a

minimum speed requirement of 45 wpm. Knowledge of basic shorthand desirable. Only those personnel suitable for independent duty and displaying superior professional competence should be recommended. Completed satisfactory background investigation required for clearance to TOP SECRET.

Navy student entry requirements and administrative procedures follow guidelines cited in the Manual of Qualifications for Advancement (NAVPERS 18068C) and Chapter XII of the Enlisted Transfer Manual (NAVPERS 15909B) as amended.

V. COURSE OUTLINE

A-1. Shorthand - Gregg Shorthand Diamond Jubilee Series

Purpose: To qualify students to record the spoken word accurately in shorthand at a minimum rate of 100 wpm and to transcribe material into final form as required in their duties as Navy Flag Writers.

NOTE: Student/Instructor ratio of 15-1 or less is recommended, due to the complexity of teaching shorthand and the need for individual attention in problem cases.

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Introduction	General introduction and motivation to Gregg Shorthand; presentation of basic shorthand strokes.	1
Basic Theory 1	Lessons 1 through 3 of Gregg Shorthand Diamond Jubilee Series (GSDJS). Basic word-forming principles, brief forms, phrasing principles, recall, plate reading, and directed drill. Lessons 1 and 2 of Most Used Words and Phrases (MUSWP).	18
Basic Theory 2	Lessons 4 through 8, GSDJS, basic word-forming principles, brief forms, phrasing principles, recall, plate reading, and directed drill. Lessons 3 through 7, MUSWP. ETV "DOING HOMEWORK."	
Graded Practical Exercise 1	Dictation test at 20 wpm.	1
Basic Theory 3	Lesson 9 through 14 of GSDJS. Word-forming procedures, brief forms, rapid recall, plate reading, and directed drill. Lessons 8 through 13, MUSWP.	21

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Graded Practical Exercise 2	Dictation test at 30 wpm.	1
Basic Theory 4	Lessons 15 through 20 of GSDJS. Coverage of word-forming procedures, brief forms with drill, rapid recall and reading and writing practice. Lessons 14 through 19, HUSWP.	20
Graded Practical Exercise 3	Dictation test at 35 wpm.	1
Basic Theory 5	Lessons 21 through 26 of GSDJS. Coverage of additional theory principles, brief forms, and reading and writing practice. Lessons 20 through 25, HUSWP.	19
Graded Practical Exercise 4	Dictation test at 40 wpm.	1
Basic Theory 6	Lesson 27 through 32 of GSDJS. Coverage of theory principles, reading and dictation on unfamiliar material, dictation practice on unfamiliar material, and brief form drills. Lessons 26 through 31, HUSWP.	19
Graded Practical Exercise 5	Dictation test at 45 wpm.	1
Basic Theory 7	Lessons 33 through 38 of GSDJS. Coverage of theory principles, reading, dictation practice on familiar and unfamiliar material, dictation tests on familiar and unfamiliar material, brief form drill and test. Lessons 32 through 37, HUSWP.	20
Graded Practical Exercise 6	Dictation test at 50 wpm.	1
Basic Theory 8	Lessons 39 through 44 of GSDJS. Coverage of theory principles, reading, dictation practice on familiar and unfamiliar material, brief form drill and official brief form test. Lessons 38 through 43, HUSWP.	19

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Graded Practical Exercise 7	Dictation test at 50 wpm on unfamiliar material.	1
Basic Theory 9	Lessons 45 through 47 and 56 through 58 of GSDJS; dictation practice on familiar and unfamiliar material, completion of basic theory, and beginning of theory review.	20
Advanced Theory 1	Lessons 59 through 63 of GSDJS; complete theory review and pyramid plan for speed building. Graded practical exercises on taking dictation of military material. <u>Manual for Military Dictation.</u>	14
Graded Practical Exercise 8	Dictation tests at 60 wpm.	6
Advanced Theory 2	Lessons 64 through 68 of GSDJS; theory review, <u>Manual for Military Dictation</u> , typewriter transcription, shortcut hints, and general dictation.	17
Graded Practical Exercise 9	Dictation tests at 70 wpm.	4
Speed Building 1	Military dictation and transcription, military vocabulary drill, and tape recorder practice.	15
Graded Practical Exercise 10	Dictation tests at 70 wpm.	4
Speed Building 2	Military dictation and transcription, speed building, sustained dictation, vocabulary drill and tape recorder practice.	15
Graded Practical Exercise 11	Dictation tests at 80 wpm.	5
Speed Building 3	Military dictation and transcription, speed building, sustained dictation, vocabulary drill, tape recorder practice, and testing at 90 wpm and higher.	15
Examination 1	Dictation tests at 90 wpm and higher.	4

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Transcription 1	Military dictation and transcription, speed building, and testing at 90 words per minute and higher.	15
Examination 2	Dictation tests at 90 wpm and higher.	4
Transcription 2	Military dictation and transcription, speed building, and testing at 90 words per minute and higher.	10
Examination 3	Dictation tests at 90 wpm and higher.	4

A-2. Shorthand Track-out

Purpose: To provide additional instruction and reinforcement for Navy personnel and thus enable them to take dictation at speeds of 100 to 120 wpm and to transcribe material into final form as required in their duties as Flag Writers.

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Basic Theory 1 Reinforcement	Basic word-forming principles, brief forms, and phrasing principles presented in lessons 1 through 3 of <u>Gregg Shorthand Diamond Jubilee Series</u> , and lessons 1 and 2 of <u>Most Used Words and Phrases</u> .	4
Basic Theory 2	Shorthand plates presented in lessons 4 through 8, GSDJS; lessons 3 through 7, MUSWP; and practice utilizing audio tape.	6
Basic Theory 3 Reinforcement	Lessons 9 through 14 of GSDJS; lessons 8 through 13, MUSWP; plate reading practice lesson 12, GSDJS; and audio tape.	4
Basic Theory 4 Reinforcement	Lessons 15 through 20, GSDJS; lessons 14 through 19, MUSWP; lesson 50, GSDJS; and dictation practice utilizing audio tape.	4
Basic Theory 5 Reinforcement	Lessons 21 through 26, GSDJS; lessons 20 through 25, MUSWP; dictation practice on plates in lesson 51; and dictation practice on audio tape.	4
Basic Theory 6 Reinforcement	Lessons 27 through 32, GSDJS; lessons 26 through 31, MUSWP; dictation practice on plates in lesson 52; and audio tape.	4

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Basic Theory 7 Reinforcement	Lessons 33 through 38, GSDJS; lessons 32 through 37, MUSWP; dictation practice plates in lesson 53; and audio tape.	4
Basic Theory 8 Reinforcement	Lessons 39 through 44, GSDJS; lessons 38 through 43, MUSWP; dictation practice on plates in lesson 54; and audio tape.	6
Basic Theory 9 Reinforcement	Lessons 45 through 47 and 56 through 58, GSDJS; lessons 44 through 47, MUSWP; word drill on theory review principles; and dictation practice using audio tape.	8
Advanced Theory 1 Reinforcement	Shorthand lessons 59 through 63, GSDJS; word drill on theory review principles; and dictation practice on audio tape.	8
Advanced Theory 2 Reinforcement	Advanced theory lessons 64 through 68, GSDJS; word drill on theory review principles; and dictation practice on audio tape.	8
Speed Building 1 Reinforcement	Shorthand speed lessons 69 and 70, GSDJS; dictation practice on audio tape; and dictation practice on speed building tapes at speeds of 70, 80, and 90 wpm.	9
Examination 11	Dictation at a rate of 70, 80, or 90 wpm on unfamiliar civilian dictation material.	2
Speed Building 2 Reinforcement	Shorthand speed by dictation practice and vocabulary building from lessons 1 through 5, <u>Gregg Dictation, Diamond Jubilee Series</u> ; tapes at 80, 90, and 100 wpm.	8
Examination 12	Dictation at a rate of 80, 90, or 100 wpm on unfamiliar civilian material.	2
Speed Building 3 Reinforcement	Increased shorthand speed by dictation practice and vocabulary building from lessons 6 through 10, GSDJS; tape recorder practice on speed building tapes at speeds of 100, 110, and 120 wpm.	2
Examination 13	Dictation at speeds of 90, 100, or 110 wpm on unfamiliar civilian material.	1

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Transcription 1 Reinforcement	Shorthand proficiency by dictation practice on lessons 11 through 15, <u>Gregg Dictation Diamond Jubilee Series</u> ; tape recorder practice on speed building tapes of 100, 110, and 120 wpm; dictation practice and vocabulary building on Previewed Paragraph Drill, <u>PPD</u> .	4
Examination 14	Dictation tests at speeds of 100, 110, and 120 wpm.	1

B. English Grammar and Usage

Purpose: To provide student with a working knowledge of the principles of English grammar and usage as required of a Flag Writer, NEC 2514.

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Introduction and Use of Textbook	Introduction and motivation; outline of subject, use of text, and critique of diagnostic pretest.	1
Spelling	Mnemonic aids and spelling rules.	1
Dictionary	Use of the dictionary.	1
Principles of Writing	The basic techniques of effective writing.	1
Sentence Structure	Function and use of subject, verb, phrases and clauses, complements, objects, modifiers, and connectives; use of coordination, subordination, and parallelism.	11
Composition	Instruction in how to prepare for writing; composing material using fundamentals taught in previous hours.	2
Word Usage No. 1	Study of words most frequently misused and misspelled by the stenographer.	2
Review No. 1	Review of preceding 19 hours.	1
Examination and Critique No. 1	Examination and critique covering preceding 19 hours.	2
Capitalization	Sentence beginnings, titles, and military capitalization.	2

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Word Usage No. 2	Measuring vocabulary; study of words most frequently misused and misspelled by the stenographer.	3
Sentence Structure No. 1	Review of run-on sentences, fragments, parallelism, coordination, and subordination.	1
Punctuation 1	Periods, question marks, exclamation marks, commas, semicolons, colons, dashes, italics, parentheses, hyphens, apostrophes, and quotation marks.	10
Punctuation 2	Periods, question marks, exclamation marks, commas, semicolons, colons, dashes, italics, parentheses, hyphens, apostrophes, and quotation marks.	5
Paragraph Construction	Review of writing techniques; composing material using fundamentals of capitalization, word usage, and punctuation taught during past 21 hours.	1
Review No. 2	Review of preceding 22 hours.	1
Examination and Critique No. 2	Examination and critique covering preceding 41 hours.	2
Agreement	Subject-verb agreement, pronoun-antecedent agreement, and adjective-noun agreement.	7
Military Capitalization and Punctuation	Military capitalization rules. Punctuation of identification lines, including reference lines, addresses, and dates. Military abbreviations. Review of military format.	6
Review No. 3	Review of preceding 13 hours.	1
Examination and Critique No. 3	Examination covering preceding 61 hours.	2
Case Usage	Use of nominative, possessive, and objective case forms of pronouns. Military error detection exercises.	5
Modifiers	Elimination of deadwood; use of modifying words, phrases, and clauses; avoidance of errors in placement of modifiers. Military error detection exercises.	4

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Review No. 4	Review of preceding 14 hours. Military error detection exercise.	2

Examination and Critique No. 4	Examination and critique covering preceding 74 hours.	2
--------------------------------	---	---

C. Administrative Procedures

1. Social Usage and Protocol

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Duties and Responsibilities as a Writer	Military bearing, personal appearance and office demeanor.	1
Flag Orientation	Duties of a receptionist, use of proper telephone procedures, and discussion of the relationship to orderlies, drivers, stewards, and boat crew.	1
Protocol	Principles of official entertaining, emphasizing planning considerations, precedence, and invitations.	2
Invitations	The guidelines and text of formal invitations, how to reply to formal invitations, to prepare regrets in writing, to withdraw an acceptance, and to prepare formal and informal invitations.	4
Seating Arrangements	Precedence and proper seating arrangements.	1
Informal Class Workshop	Preparation of invitations, acceptances, regrets, and withdrawals of acceptance.	1
Critique and Review of Informal Class Workshop	Review and critique of errors committed in workshop conducted in previous hour of instruction.	1
Change of Command Ceremony	Preparation of invitations and programs for change of command ceremony, seating arrangements, and the reviewing line.	2
Formal Class Workshop	How to complete invitations, and a combined acceptance and regret to an invitation.	1

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Critique and Review of Formal Class	Review and critique of errors committed in workshop conducted in previous hour of instruction.	1
Examination and Critique	Examination and critique of material presented in preceding 15 hours.	2

2. Office Procedures

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
General	Tasks for the workday, preparation of SF 83, summaries of conversation on DA Form 751, routing of correspondence on DD Form 95, scheduling of appointments, and proper telephone procedure.	5

3. Boards and Investigations

<u>TITLE</u>	<u>SUBJECT MATTER</u>	<u>HRS.</u>
Introduction to Military Boards and Investigations	The purpose, functions, and types of military boards and investigations.	1
Military Boards	Military Boards format, rules and board procedures.	2
Preparation of Report of Board Proceedings	Preparation of reports of board proceedings.	1
Simulated Board	Recording and transcribing a simulated military board.	5

VI. COURSE PERFORMANCE OBJECTIVES

Administrative Note: Course performance objectives correspond to the general sequence of subjects cited in section V, Course Outline. These objectives may include a single topic listed in section V or a grouping of appropriate topics within a single objective equating to terminal objectives for the course.

When the trainee completes this course of instruction, he will be able to:

1. Demonstrate the ability to utilize the Gregg Diamond Jubilee Shorthand system to take dictation at 100 wpm for 3 minutes and transcribe dictated material with 95 percent accuracy; i.e., a maximum of 12 errors.

2. Demonstrate knowledge of, and correct usage of, the principles of English grammar, as listed in course outline, through successful completion of written practical exercises and comprehensive examinations with a minimum score of 70 percent.

3. Describe the responsibilities, military bearing, and demeanor and standards of office practice required of a Flag Writer, subject to objective evaluation of satisfactory by instructor staff.

4. Demonstrate familiarity with Navy and civilian social protocol through successful completion of a written examination with a minimum score of 70 percent.

5. Demonstrate, through practical exercises, his ability to prepare invitations, acceptances, regrets, and other social correspondence in proper format with a minimum score of 70 percent.

6. Describe in proper sequence the preparation of a written program for:

- a. A change of command ceremony
- b. The visit of a dignitary, including escort officers' duties
- c. The planning, organizing, and conduct of official and unofficial social affairs.

The above to be demonstrated through successful completion of a written examination with a minimum score of 70 percent and/or an objective evaluation of satisfactory by instructor staff.

7. Describe, either orally or in writing, the principles related to hosting formal and informal dinners, with a minimum score of 70 percent, without references.

8. Describe, with an evaluation of satisfactory by the instructor, the organization and duties of:

- a. A Staff
- b. The Chief of Staff/Chief Staff Officer
- c. The Flag Lieutenant/Aide
- d. The Flag Secretary/Aide

9. Demonstrate knowledge of sources of directives related to Social Usage and Protocol, Navy organization, and duties and responsibilities of Flag officer personnel, through comprehensive written and practical examination, for a minimum score of 70 percent.

10. Demonstrate, through written and practical exercises and examinations, knowledge of Office Procedures and Boards and Investigation, as prescribed by JAG Manual, with a minimum score of 70 percent.

11. Given a typewriter and unfamiliar text, demonstrate ability to prepare typed materials, in proper format, at a speed of not less than 45 wpm for a period of 5 minutes, with a maximum of 5 errors.

VII. TEXTS, EQUIPMENT AND SUPPLIES

Shorthand

Gregg Shorthand Diamond Jubilee Series

Most Used Words & Phrases

ETV: Doing Homework (or equivalent)

Manual for Military Dictation

Audio tapes - dictation.

English

McGraw-Hill: Handbook of English

Webster's New World Dictionary

GPO Style Manual

SECHAVINST 5216.5B, Correspondence Manual

BUPERSINST 2340.1B, Authorized Abbreviations and Brevity Codes

Administration

JAGINST 5800.7A, Manual of the Judge Advocate General

Social Usage and Protocol

OPNAV 092-P1, Social Usage & Protocol Handbook

NAVEXOS P-1035, Navy Public Information Manual

NWP-12 (R)

Naval Orientation, NAVPERS 16138D

Enlisted Transfer Manual, NAVPERS 15909B

U.S. Navy Regulations, 1948

Naval Customs, Traditions, & Usage: Lovette, U.S. Institute,
4th ED. 1959 (or later)

Yeoman 3 and 2, NAVPERS 1024-F

Yeoman 1 and "C." NAVPERS 10241-D

Equipment

IBM Executive Typewriters or equal

IBM Selectric Typewriters or equal

Tape Recorder

Practice Shorthand Tapes

Individual Headsets

Gregg Shorthand Audio Tapes

ETV Equipment or equivalent

VIII. STUDENT EVALUATION

A. General

1. The instructional techniques related to performance-based skill training require a continuous evaluation process to identify student problem areas, to effect remedial action, and to determine when a student has satisfactorily achieved the competence required by baseline criteria for performance objectives within instructional units of the course. These units will normally include:

- a. Theoretical or basic knowledge
- b. Demonstration of the proper method of performance
- c. Demonstration of quantitative and qualitative standards for the skills and knowledge required by the trainee's job assignment.

B. Procedural Guidelines

1. The theoretical or basic knowledge and demonstration of proper method of operation shall constitute a phase weighted at 40 percent; meeting the associated performance standard, if applicable, shall constitute a phase weighted at 50 percent for individual instructional units. The combined totals of phases within the instructional unit shall meet a

minimum of 70 percent successful completion of theoretical or basic knowledge, and 100 percent performance criteria for shorthand and typing skills.

2. Meeting of the 70 percent to 100 percent success baseline in terms of knowledge and performance goals may or may not occur during individual instructional units since practice will be required to gain proficiency in the performance standard phase. If the performance standard for a particular unit of instruction has not been met by a student, the instructor/evaluator may allow the student to progress to the next instructional unit provided the student has met the 70 percent baseline criteria for the theoretical or basic knowledge phase of the instructional unit under question. Otherwise, remedial training or an adverse action is indicated.

C. Grades

1. The ranking of students by numerical grade is not required; however, the accumulative record of successful completion of unit performance objectives serves as a guide to student performance. This accumulative record shall be the basis for determination of a "trained student" in terms of the contractual effort. In other words, the 70 percent/100 percent success level in meeting all stated academic and performance objectives of the course constitutes primary evidence of qualifying performance.

D. Production Standards

1. The following production standards represent minimum performance standards with the Navy for Flag Writers:

<u>SKILL</u>	<u>SPEED</u>	<u>ACCURACY</u>
Shorthand (Gregg)	100 wpm for 3 min.	95 percent (max. 15 errors)
Typing	45 wpm for 5 min.	Maximum 5 errors

IX. RECORDS AND REPORTS

A. General

1. Section 3 of the Training Specification for Navy/Marine Corps Vocational/Technical (VOTEC) Skill Training Program applies.

B. Student Records

1. Individual student progress sheets to be submitted at completion of training shall cite the performance objectives and date of successful completion. The progress sheet should be open to the student concerned during counseling sessions with his instructor or upon special request. Such records shall be certified for accuracy by the training contractor prior to submission.

2. Any other student records required are at the discretion of the contractor or as may be required by the contracting officer to support payment for services received.

C. Reports

1. Student progress reports shall be submitted at an appropriate point approximately midway through the course and at course completion to a training agent designated by the contracting officer.